Ad Hoc Preparatory Meeting for Establishment of WHE Strategic and Technical Advisory Group for Infectious Hazards (STAG-IH)

8-9 May 2018, Geneva, Switzerland

SUMMARY REPORT

On May 8-9, 2018, the WHO Health Emergencies (WHE) Programme convened a meeting to prepare for establishment of the Strategic and Technical Advisory Group for Infectious Hazards (STAG-IH), a multidisciplinary group of external experts newly tasked with advising the Deputy Director-General of Emergency Preparedness and Response on new and emerging infectious hazards that can threaten global health security. The official meeting agenda and provisional list of participants are provided in Annexes A and B, respectively.

The following provisional STAG-IH members were present at the meeting:

Professor David Heymann, Chair
Dr. Juliet Beford
Dr. Delia Enria
Professor Johan Giesecke
Dr. Chikwe Ihekweazu
Dr. Gary Kobinger
Dr. Clifford Lane
Professor Myoung-don Oh
Dr. Amadou Alpha Sall
Dr. Kumnuan Ungchusak

Provisional members Dr. Hanan Balkhy, Dr. Anne Schuchat, and Professor Lothar Wieler joined parts of the meeting via online connection.
Introduction

Dr. Peter Salama (Deputy Director-General of Emergency Preparedness and Response) welcomed the participants on behalf of WHO and the WHE Programme and noted the timeliness of the meeting, given the morning’s announcement of an Ebola outbreak in the Democratic Republic of Congo that will allow STAG-IH members to witness real-time activation of WHE’s response efforts. Dr. Salama emphasized that this first STAG-IH gathering is a preparatory meeting to discuss how WHE and the advisory group might work together to support and enhance WHE activities and focus attention on infectious hazard management.

WHE was created as part of the WHO reforms stemming from the response to West Africa’s 2014-2015 Ebola crisis. As a new global structure to optimize coordination, operations, and information flow, WHE brings all of WHO’s work in emergencies into a single program across WHO’s three organizational levels. The Programme aligns with the strategic priorities of WHO’s 13th General Programme of Work (GPW 13) and has the strong support of the new Director-General. According to Dr. Salama, WHE has demonstrated impressive accomplishments and an important proof of concept in its first 18 months, but it is time now to step back, look at what remains to be done, and ‘consider how we might do better.’

Despite the existence of groups providing managerial oversight, formal technical consultations, and high-level political advocacy, there remains a gap in the availability of on-call, multidisciplinary, scientific/public health counsel to inform WHE decision-making. Dr. Salama therefore presented his view of STAG-IH as a standing group providing technical and strategic advice to WHE -- both in real time during acute outbreak events and over the long term (i.e., during inter-epidemic periods). Requests for consultations/advice can come from WHE or from the group itself (i.e., supply- or demand-driven) and can be informal or formal as required.

Dr. David Heymann (STAG-IH Chair) offered his welcome and thanks, after which Dr. Nikki Shindo (STAG-IH Secretariat Lead) reviewed the meeting agenda and charge and Ms. Alma Alic (WHO Ethics Officer) reviewed conflict-of-interest compliance requirements and procedures for WHO advisory groups.

WHE Overview

Dr. Mike Ryan (Assistant Director-General, Emergency Preparedness and Response, WHE) gave an overview of WHE’s origin, scope, and structure. At the 68th World Health Assembly in 2015, WHO committed to establishing an all-hazards emergencies program underpinned by the IHR and contributing to health systems strengthening at the global level. WHE was subsequently established with a mission to ‘help countries and coordinate international action to prevent, prepare for, detect, rapidly respond to, and recover from outbreaks and emergencies,’ and a conceptual framework built on four pillars:

- Early warning, risk assessment, and emergency response
- Prevention and control strategies for high-threat infectious hazards
- IHR assessment and core capacity strengthening
- Health systems strengthening in high-vulnerability countries

WHE includes five technical and operational departments with the following functions:

- **Infectious hazard management (IHM):** Build knowledge and “know-how” on infectious hazards, and ensure that WHE is equipped at global, regional, and national levels to mitigate risks from high-threat infectious hazards (Director: Dr. Sylvie Briand)
- **Country health emergency preparedness & IHR (CPI):** Ensure that all countries are prepared to respond to outbreaks and emergencies and exercise their rights and fulfill their obligations under the IHR (Director: Dr. Peter Graff)
• **Health emergency information & risk assessment (HIM):** Ensure that WHO is the most reliable source of information for public health decision-making in emergencies through detection, early warning, and detailed risk assessment (Director: Dr. Oliver Morgan)

• **Emergency operations (EMO):** Ensure that the response to acute public health events is rapid and targeted, and that essential health services are maintained in protracted crises (Director: Dr. Rick Brennan)

• **Management & administration (MGA):** Ensure a platform for effective management support to WHE and field operations (Director: Ms. Jennifer Linkins)

A huge program with massive demands, WHE prioritizes its investment in countries with high vulnerability and low capacity to respond to health crises. WHE has a 2016-17 core budget of US$485 million. The Contingency Fund for Emergencies (CFE) provides a mechanism outside the core budget for release of emergency funds (up to US$500,000) within 24 hours of a request. The CFE’s capacity for rapid disbursement of funds for early emergency response sets it apart from the World Bank’s Pandemic Emergency Financing Facility (PEF), which has a slower disbursement cycle and more stringent activation criteria based on epidemic thresholds (see below). The CFE has been used 44 times; the PEF has yet to be used.

Echoing Dr. Salama’s vision, Dr. Ryan views STAG-IH as a multidisciplinary group of experts who are available to look critically at WHE’s activities, advocate for equitable use of resources, challenge/advise on strategic decisions in real time, call out/maintain visibility for big issues, and provide a powerful voice for science and public health.

**WHE Technical Advisory Groups, Working Group, and Initiatives**

To acquaint STAG-IH members with other WHE advisory and technical-support bodies, staff members reported briefly on the following groups. More detailed profiles are provided in the *Catalog of Technical Advisory Groups, Networks, and Initiatives* distributed to STAG-IH members.

• **Global Influenza Surveillance and Response System (GISRS) Expert Network:** Provides advice on a range of influenza-related issues, contributes to virus monitoring and bi-annual vaccine strain decisions, and participates as needed in influenza-related working groups

• **Vaccine Composition Advisory Group:** Analyzes influenza surveillance data generated by GISRS, and issues recommendations on the composition of influenza vaccines for the following season

• **Pandemic Influenza Preparedness (PIP) Framework Advisory Group:** Monitors, assesses, and advises on the processes and operations of the Framework, which brings together Member States, industry, and other stakeholders to improve and strengthen the sharing of influenza viruses with human epidemic potential and to increase access to vaccines and other pandemic-related supplies

• **Strategic Advisory Group of Experts (SAGE) Working Group on Influenza:** Reviews the scientific evidence and programmatic considerations to assess the sufficiency of evidence to inform a revision of the global policy on use of influenza vaccines, and advises on research priorities and data interpretation

• **Advisory Committee for Variola Virus Research (ACVVR):** Meets annually to approve and oversee research using live variola virus that is conducted at the two WHO global repositories, US CDC and VECTOR in the Russian Federation; responsible for all matters related to smallpox research including the biennial biosafety inspections of the repositories

• **Zika Task Force:** Advances a coordinated strategic and operational framework to support countries in future outbreaks and in long-term management of Zika virus disease; transitions from an emergency response to a long-term program for surveillance, prevention, control, and research in the context of other arboviruses, maternal-newborn health, and neurological disorders; builds a platform for future preparedness
• **Eliminating Yellow Fever Epidemics (EYE) Strategy:** Aims to protect populations most at risk for yellow fever, ensure a ready supply of yellow fever vaccine, build resilience in urban centers, and prevent international spread; a Leadership Group comprising senior management of WHO, UNICEF, and GAVI provides high-level direction. State-of-art expertise is pulled in from technical advisory groups of experts.

• **Global Task Force on Cholera Control (GTFCC):** Supports implementation of evidence-based strategies to control cholera through strengthened collaboration and coordination, with a goal of raising the visibility of cholera as a public health issue and contributing to national capacity development.

• **International Coordinating Group (ICG) for the Provision of Yellow Fever, Meningitis, and Cholera Emergency Vaccine:** Ensures equitable decision-making at the global level regarding the stockpiling and deployment of vaccines for three epidemic-prone diseases.

• **R&D Blueprint for Action to Prevent Epidemics:** Facilitates the rapid activation of R&D activities before and during outbreaks; counsel and coordination are provided by a Scientific Advisory Group that advises WHO on implementation of the Blueprint.

**WHE Strategic Partnerships**

Staff members also briefed the participants on key partners in emergency response. Profiles of these groups are included in the *Catalog of Technical Advisory Groups, Networks, and Initiatives.*

• **Global Outbreak Alert and Response Network (GOARN):** WHO-coordinated collaboration of >200 partners who pool human and technical resources for the rapid identification, confirmation, and response to outbreaks of international importance. Governance is provided by a Steering Committee comprised of one WHO representative and 20 members from partners. Since 2000, WHO has worked with GOARN on 148 major international operations and 2,720 rapid deployments to provide technical advice and support to 88 countries. A new initiative – GOARN 2.0 – aims to expand and increase involvement of partners and accelerate development and operations.

• **Emergency Medical Teams (EMT) Initiative:** Groups of health professionals providing direct clinical care to populations affected by disasters, outbreaks, and other emergencies as surge capacity to support the local health system; a Strategic Advisory Group provides counsel and coordination. The EMT initiative currently supports more than 65 countries to develop strong national teams for emergency response and takes a combined approach to clinical and public health teams at the national level; 15 teams have been so far quality assured for international deployment, with 75 being supported to reach minimum quality standards.

• **Emerging and Dangerous Pathogens Laboratory Network (EDPLN):** The laboratory arm of GOARN, a network of 23 high-security laboratories working to enhance readiness and response of countries for timely laboratory detection and outbreak management of high-threat pathogens, and to facilitate transfer of safe and appropriate diagnostic technologies, practices, and training to laboratories in affected countries.

• **Emerging Diseases Clinical Assessment and Response Network (EDCARN):** Network within GOARN of 65 clinicians providing rapid clinical guidance and infection prevention and control during preparedness and response (e.g., field deployments, guidelines, operational research, toolkits).

• **Risk Communication Advisory Group:** A new group to provide professional advice, and surge-capacity deployment related to anthropology, community engagement, health communication, and risk communication for health emergencies.
WHE Oversight: Independent Oversight Advisory Committee (IOAC)

In the context of the groups described above (many with pathogen-specific functions), STAG-IH is viewed as having an overarching, all-hazards advisory role. The distinctive functions envisioned for STAG-IH are also seen as complementary to the functions of the Independent Oversight and Advisory Committee (IOAC).

Based on recommendations arising from the Ebola response, the Director-General established the IOAC to provide oversight and monitoring on the development and performance of WHE and to report findings through the Executive Board to the World Health Assembly. The Committee is housed in the Director-General’s office and includes members drawn from national governments, nongovernmental organizations, and the UN system. Main functions are to: 1) assess WHE performance in health emergencies, 2) determine the appropriateness and adequacy of WHE financing and resourcing, 3) review WHE reports on actions in health emergencies, and 4) prepare an annual report on IOAC activities. Since its launch in 2016, the IOAC has been tracking progress in eight areas: structure, human resources, incident management, risk assessment, finance, business processes, partnerships, and IHR. The next report will be presented at the World Health Assembly in May 2018.

Emergency Operations and IHR Emergency Committees

In an adjustment to the agenda, the group moved to the WHO Strategic Health Operations Centre (SHOC) for an update on status and plans regarding the ongoing Ebola disease outbreak in DRC and a brief overview of emergency operations at WHO headquarters and regional offices.

Dr Carmen Dolea (Medical Officer, IHR Committee and Travel and Trade, WHE) reported on IHR Emergency Committees (ECs), the groups convened to determine whether an event constitutes a public health emergency of international concern (PHEIC). ECs are viewed as critical tools for: 1) obtaining independent expert technical advice for determining a PHEIC and issuing temporary recommendations, 2) helping protect economics from the negative impact of unjustified travel or trade measures, 3) focusing visibility on events of low probability/high impact to mobilize sufficient resources for research, response, and preparedness, and 4) putting pressure on States for data sharing, timely collaboration, and avoidance of unjustified trade and travel restrictions.

To date, PHEICs have been declared for influenza H1N1, polio, Ebola, and Zika; despite the convening of several ECs since 2013, MERS has not been declared a PHEIC. A proposed decision instrument to make the EC process more structured, systematic, and transparent is currently under consideration.

MERS-CoV Case Study: Prototype Topic for STAG-IH Consultation

Dr. Maria van Kerkhove (Manager, Emerging and Re-emerging Diseases, Infectious Hazard Management, WHE) presented on WHO’s global program on Middle East respiratory syndrome (MERS) and framed a discussion of how STAG-IH might advise on activities going forward in the absence of a dedicated pathogen-specific advisory group and in the context of a prototypic emerging zoonotic pathogen. Dr. Balkhy and Professor Oh added their personal experience from the Kingdom of Saudi Arabia (KSA) and the Republic of Korea, respectively.

MERS is a viral respiratory disease caused by a novel coronavirus (MERS-CoV). MERS-CoV is a zoonotic pathogen with repeated sporadic introductions into the human population from contact with dromedary camels, resulting in limited human-to-human transmission, notably in healthcare settings. No vaccine or specific treatment is available; outbreaks can be controlled with standard infection prevention and control,
contact tracing, isolation, and care. MERS emerged in the Kingdom of Saudi Arabia in 2012 and has been reported in 27 countries, with ~80% of human cases reported by KSA. The largest outbreak outside KSA occurred in South Korea in 2015, resulting from an imported case with a history of travel to the Middle East.

In collaboration with affected countries and partners WHO is coordinating the global health response to MERS. WHO’s MERS Global Work Plan centers on 1) strengthening preparedness in at-risk countries for early detection of infections in humans, 2) improving countries’ ability to respond to and contain outbreaks, and 3) improving evidence-based guidance. Research remains a critical effort, with an aim of linking public health and animal health goals; topics include virus origins/characteristics, epidemiology and transmission, clinical management and infection control, product development and implementation, and impact of interventions. Challenges include the unpredictability of outbreaks, need for control vs ‘opportunity’ for research, lack of clinical research capacity in country, ethical considerations, need for multisite coordination, and, importantly, cultural hurdles.

In 2012, the Director-General convened an Emergency Committee to advise as to whether MERS constitutes a PHEIC. The Committee has met 10 times; the last meeting was in September 2015. The EC advised that conditions for a PHEIC have not been met but acknowledged a continuing risk for the global community resulting from insufficient awareness about the urgent dangers posed by this virus, insufficient engagement by all relevant sectors, and insufficient implementation of scalable infection control measures, especially in healthcare settings.

**WHE Risk Assessment**

Dr. Oliver Morgan (Director, Health Emergency Information & Risk Assessment, WHE) briefed the group on WHE’s risk assessment process, which drives the program’s responses and actions. The process is based on a continuous cycle of epidemic intelligence gathering from multiple sources, processing to detect signals, verification, descriptive analysis, and risk assessment, followed by reporting and response.

WHE rapid risk assessments are conducted independently by WHO at all three levels of the organization and highlight/document urgent actions for decision makers. Each risk assessment document includes a statement of degree of risk, description/view of the risk, IHR-related risk questions, recommended actions, and supporting information. Each month, the program identifies 500,000 pieces of information of interest, screens 7,000 signals, investigates 300 events, and conducts 10 risk assessments. A total of 113 risk assessments were conducted in 2017, most driven by AFRO.

The risk assessment approach is new and evolving, with no hard criteria for when to conduct an assessment. Factors for consideration for acute events include meeting Annex 2 IHR criteria, complexity of issues involving multiple countries, and lack of sufficient information to assess the situation with a high level of certainty. Other considerations include anticipation/requirement for WHO support/response, reputational risk for WHO, and need for a preliminary step before further actions or response. Looking to the future, a new all-hazards early warning task team to provide quarterly horizon scanning is being implemented.

**World Bank Partnerships**

Dr. Tim Evans and Dr. Mukesh Chawla called into the meeting to report on two joint WHO-World Bank initiatives.

- **Global Preparedness Monitoring Board (GPMB):** This is a new joint security initiative that will be launched at the upcoming 2018 World Health Assembly. The aim is to convene an expert group to advocate at the highest political levels for global preparedness for all threats/crises with potential health consequences. The Secretariat will be housed at WHO.
• **Pandemic Emergency Financing Facility (PEF):** The PEF is a new, post-Ebola contingency financing mechanism. The PEF includes two ‘windows.’ An insurance window can provide coverage up to US$425 million for an initial period of 3 years for outbreaks of infectious diseases with epidemic potential; epidemiologic triggers based on the size, severity, and spread of an outbreak determine when the funds can be released. A complementary cash window of Euro 50 million is designed to provide more flexible funding to address emerging pathogens that may not meet the activation criteria for the insurance window. The PEF is currently in its first iteration; the World Bank is actively considering revisions for the next version, including changes to the thresholds for activation. STAG-IH might be helpful in these deliberations.

### Key Contemporary Features and Challenges in Epidemic Responses

Dr. Sylvie Briand (Director, Infectious Hazard Management, WHE) concluded the presentations with an overview of major infectious threats of the 21st century and their pivotal consequences, and thoughts on innovations on the horizon with potential implications for epidemic response.

She first reviewed a chronology of selected public health events and the concurrent evolution of policies and interventions, for example: 1) SARS in 2003 and MERS in 2013 and effects on IHR, travel, and trade, 2) avian influenza H5N1 in 2003 and H7N9 in 2013 and outcomes including a new One Health approach, 3) pandemic influenza A(H1N1) and the effect of social media on risk communication, 4) Ebola in West Africa and the impact on WHO’s reputation, the shift to urban outbreaks, and a recognition of the importance of social science interventions, and 5) Zika in 2016 and the recognition of the challenges of vector-borne diseases/vector control and lack of WHO capacity to support long-term consequences of acute events.

Looking to the future, it will be necessary to consider new technologies related to, for example, genomics and artificial intelligence, and the need to be proactive in considering their impact (positive and negative) on detection, management, and control of infectious threats.

### Summary of Discussions

The group’s wide-ranging discussions of the presentations, moderated by Dr. Heymann, yielded agreement on the role and functions of STAG-IH and generated several issues for possible future consideration by the group.

### Potential STAG-IH Roles/Functions

- Provide technical and strategic advice to WHE in real time; serve as a standing group with an advisory role. Advice will be both:
  - Informal and formal
  - Acute (operational issues during outbreaks, e.g., Ebola in DRC) and long-term (planning and prioritization during inter-epidemic periods, e.g., MERS, Zika)
  - ‘Supply’-driven and ‘demand’-driven
- Serve as an over-arching advisory group to complement existing groups and assume other needed functions (‘external review from critical friends’)
  - Advocate for public health capacity building
  - Address cross-cutting issues
  - Promote rational use of resources
Topics for Possible Consideration by STAG-IH

The members agreed that an overarching principle going forward will be to shift/realign from response to preparedness, prevention, and capacity development, i.e., keeping country capacity development at the forefront to prevent public health emergencies. With that principle in mind, the group agreed on the following focus areas:

- **Balance between WHO global function and national capacity development**
  - Given that WHO will always have a global function, how best to realign global action and resource commitment toward long-term preparedness vs acute response
  - Advocacy/pledge of international support for clearly defined, competent national ‘entry points’ (e.g., national public health institute or equivalent) to accelerate development of core public health functions in every country; these need to be supported for all countries, not only for those affected by national health crises (e.g., SARS, Ebola)
  - Advocacy for strong country offices (size and expertise tailored to context)

- **Operational research**
  - Possibilities for accelerating/integrating R&D into emergency response; safe and effective implementation of research interventions in an affected country
  - Possibilities for advancing research preparedness and collaboration frameworks in advance of new epidemics

- **Vaccines, diagnostics, therapeutics, and other products**
  - Rationalization/forecasting of global vaccine need and supply
  - Advocacy for equitable and well-regulated distribution of and access to vaccines, therapeutics, and diagnostics; role for STAG-IH in addressing factors that impede getting goods to people who need them
  - GAVI’s role in health security
  - Addressing gaps, e.g., meningitis C vaccine, resources for diagnostics, etc.

- **Horizon scanning**
  - Forward-thinking advice to countries on new technologies (e.g., genomics; artificial intelligence)

- **Funding and resources**
  - Promotion of rational and equitable use of resources
  - Advocacy to convince the global development community to ‘turn the dial’ from investment only in acute response to investment in preparedness and capacity building
  - Alignment of WHO and World Bank activities; review of PEF epidemiologic assumptions/thresholds for release of emergency funds during the early window of need; develop processes for working with the PEF cash window, with consideration of adding this function to the STAG-IH terms of reference

- **Sustainable post-emergency programs, e.g., Zika; (‘end of an emergency is not the end of a response’)**

- **Challenges in addressing cross-cutting issues (e.g., One Health) cohesively in a vertical organizational structure**

- **Pathogen-related topics**
  - Vector-borne disease
  - Urban threats; changing contexts for infectious diseases
  - Variola virus destruction
  - MERS-CoV as prototype (ongoing advice regarding new zoonotic pathogens)

**STAG-IH Terms of Reference**

Dr. Shindo led a discussion of draft STAG-IH Terms of Reference. The group’s comments and changes are reflected in the revised draft attached (Annex C). A decision on a final name for the group (STAG-IH or other) is pending.
Recommendations

1. STAG-IH will address long-term issues related to MERS at the next meeting. Topics for consideration include the MERS global work plan, research agenda and priorities, vaccine use, and consideration of the cross-cutting, ongoing advisory role for STAG-IH for emerging disease programs with no dedicated advisory group.

2. STAG-IH will focus on the following priority areas during subsequent meetings. For each topic, the Secretariat and WHE staff will prepare a ‘white paper’ or other summary document (including case studies as available) to frame the STAG-IH discussion:
   - Opportunities for increasing national capacity development during outbreaks and during post-outbreak periods
   - Support for and facilitation of an operational research ‘pillar’ in every event

3. The Secretariat and WHE staff will prepare a document to clarify the functions of and interactions among the various WHE advisory bodies, networks, and partnerships; the Secretariat will arrange for a detailed presentation/discussion of one (or two) of these groups at each STAG-IH meeting. The STAG-IH members will consider how best to interact with these groups going forward.

4. STAG-IH will be available for possible short-notice and/or deadline-sensitive consultation on: 1) recommendation to World Bank to dispense PEF funds for the ongoing Ebola outbreak in DRC; 2) public health views/considerations regarding variola virus destruction; and 3) endorsement of the new global influenza strategy.

5. STAG-IH will confer right away with the World Bank on the terms of reference for the PEF, as a basis for continued discussions regarding alignment of WHO and World Bank emergency funding efforts.
Annex A. STAG-IH Meeting Agenda

Day 1: Tuesday, 8 May 2018 (Salle B)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker/Description</th>
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<tbody>
<tr>
<td>8:30</td>
<td>Registration</td>
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<tr>
<td>9:00</td>
<td>Opening and welcome</td>
<td>Peter Salama, Deputy Director-General, Emergency Preparedness &amp; Response, WHO Health emergencies programme (WHE)</td>
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<tr>
<td>9:20</td>
<td>Introduction</td>
<td>Chair</td>
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<tr>
<td>9:30</td>
<td>Background, scope and purpose, expected outcomes of the meeting</td>
<td>WHO Secretariat</td>
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<td>9:35</td>
<td>DoI statement</td>
<td>WHO DGO/CRE</td>
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<td>9:40</td>
<td>WHE Programme overview</td>
<td>Mike Ryan, Assistant Director-General, Emergency Preparedness &amp; Response, WHE</td>
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<tr>
<td>10:10</td>
<td>Refreshment break</td>
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<tr>
<td>10:30</td>
<td>Overview of existing advisory groups, task forces, working groups 'How do we turn ideas to action?'</td>
<td>Chair</td>
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<td></td>
<td></td>
<td>Global Task Force on Cholera Control (GTFCC), EYE Strategy, Influenza (PIP, GISRS, VCM, SAGE), ACVVR, Zika taskforce, R&amp;D Blueprint.</td>
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<td></td>
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<td>All</td>
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<tr>
<td>12:00</td>
<td>Housekeeping announcement</td>
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<td></td>
<td>Lunch break</td>
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<tr>
<td>13:20</td>
<td>Meet in front of WHO Library, then guided to SHOC main</td>
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<tr>
<td>13:25</td>
<td>SHOC introduction</td>
<td>SHOC Team</td>
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<td>13:30</td>
<td>Case Study – MERS CoV</td>
<td>Chair, Secretariat</td>
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<td></td>
<td>To be organized in SHOC</td>
<td>Maria van Kerkhove, MERS focal point, WHE/IHM</td>
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<tr>
<td>14:30</td>
<td>IHR Emergency Committees</td>
<td>IHR Secretariat</td>
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<td>Independent Oversight Advisory Committee</td>
<td>IOAC Secretariat</td>
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<tr>
<td>15:00</td>
<td>Return to Salle B</td>
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<td></td>
<td>Refreshment break</td>
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<tr>
<td>15:30</td>
<td>Partner mapping</td>
<td>Chair, Secretariat</td>
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<td>GOARN, EMT, EDPLN, EDCARN, RCCE, WHO CCs, Funding agencies, implementing partners (EXR)</td>
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<tr>
<td>16:30</td>
<td>Pandemic Emergency Financing Facility (PEF), World Bank and the Global Preparedness Monitoring Board</td>
<td>Secretariat</td>
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<td></td>
<td>(GPMB)</td>
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<tr>
<td>16:45</td>
<td>Wrap-up and Adjourn</td>
<td>Chair</td>
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### Day 2: Wednesday, 9 May 2018 (Salle B)

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<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenter(s)</th>
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<tbody>
<tr>
<td>09:00</td>
<td>Recap of Day 1, Introduction to Day 2</td>
<td>Chair</td>
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<tr>
<td>09:15</td>
<td>WHE Risk Assessment</td>
<td>Oliver Morgan, Director, WHE/HIM</td>
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<tr>
<td>09:40</td>
<td>Infectious Hazards – current overview</td>
<td>Sylvie Briand, Director, WHE/IHM</td>
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<tr>
<td>10:10</td>
<td>Discussion Identification of High priority infectious hazard agenda</td>
<td>Chair, all</td>
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<tr>
<td>10:30</td>
<td>Refreshment break</td>
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<tr>
<td>11:00</td>
<td>STAG-IH establishment Q&amp;A, Discussion</td>
<td>Secretariat</td>
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<td>12:30</td>
<td>Sandwich and Salad break</td>
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<tr>
<td>13:30</td>
<td>Timeline of activities, list of action points, discussion</td>
<td>Chair, all</td>
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<tr>
<td>15:30</td>
<td>Summary of action points</td>
<td>Secretariat</td>
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<tr>
<td>15:50</td>
<td>Meeting conclusion</td>
<td>Chair</td>
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<tr>
<td>16:00</td>
<td>Adjourn</td>
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Annex B. STAG-IH Provisional List of STAG-IH Participants

External participants

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Annex C. Revised STAG-IH Terms of Reference

Background

The Review Committee on the Role of the International Health Regulations (2005) in the Ebola Outbreak and Response recommended the establishment by WHO of “a standing advisory committee, which would have the primary purpose of regularly reviewing WHO’s risk assessment and risk communication; creates an intermediate level of alert via a new category of risk that requires specific follow-up, called an International Public Health Alert (IHPA); and develops an updated communication strategy” in its Report on the Role of the International Health Regulations (2005) in the Ebola Outbreak and Response (WHA69/21).

Purpose

Following the recommendation made by the aforementioned Review Committee, the Director-General decided to establish the Strategic and Technical Advisory Group on Infectious Hazards to provide independent advice and analysis to the Deputy Director General of Emergency Preparedness and Response (DDG of WHO/EPR), as per the functions delegated to him, on the infectious hazards that may pose a potential threat to global health security. The STAG will play a distinctive principal advisory role on infectious hazards, without prejudice to the respective mandates and work already carried out by the Independent Oversight and Advisory Committee (IOAC) for the WHO Health Emergencies Programme and the IHR emergency committees (EC).

Functions

The STAG shall have the following functions:

- Assessing the global context of infectious diseases on a regular basis for changing determinants of infectious hazards, and conducting and reviewing horizon scanning of new and emerging infectious hazards and technologies;
- Providing analysis and advice on priority setting for WHO’s strategies and activities in prevention, preparedness and response related to infectious hazards;
- Reviewing information about new and emerging infectious diseases and ongoing outbreaks and making recommendations for further investigation, prevention and control, research and innovation;
- Providing analysis and advice on innovative collaborations, partnerships and other mechanisms for greater global health security;
- Providing technical and scientific advice on issues related to the Pandemic Emergency Financing Facility (PEF) and the Global Preparedness Monitoring Board (GPMB).
For PEF specifically, STAG-IH will:

1. Review and recommend adjustments to the PEF Cash Window activation criteria;
2. Make a technical assessment of outbreak events for eligibility against the activation criteria;
3. Within the technical competency of STAG-IH, assess any proposed country response plan that has not been developed with WHO, with the aim of ensuring consistency with WHO policy or prevailing expert opinion in the absence of WHO policy;
4. On the basis of a technical assessment, provide advice to the PEF Steering Body in connection with a decision by the PEF Steering Body to activate the Cash Window for a given outbreak;
5. Respond to queries from the Steering Body that have been raised through the PEF Coordinator and that pertain to items (i) (ii) (iii) and (iv) above and that are within the scope of the STAG-IH’s mandate as set out in its TORs;
6. Chair of the STAG-IH or a member designated by Chair will represent STAG-IH for PEF Steering Group Cash Window Activation discussion.

Membership

The STAG will have between 10 and 15 members, who shall serve in their personal capacity and who will be selected by WHO taking into consideration inter alia their technical expertise, geographical representation and gender balance. Each member will be cleared of any conflict of interest.

Membership of STAG shall seek to reflect a representation of:

- Professional experience;
- Major areas of expertise;
- Strategic focus areas of WHO work in infectious hazards.

Staff members of the WHO or other United Nations entities are not eligible to serve as members of the STAG.

Members of the STAG shall be appointed to serve for a maximum period of 3 years, and will be eligible for reappointment, however, may not serve more than two consecutive terms.

Their appointment as members may be terminated at any time by WHO, if WHO’s interest so requires, in particular for:

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1 Prior to being considered for STAG membership, nominees shall be required to complete a WHO Declaration of Interests form as per the WHO standard practice.
- any change resulting in a conflict of interest or involvement in activities resulting in a conflict of interest incompatible with serving on STAG;
- a lack of professionalism involving, for example, a breach of confidentiality or other serious failure to comply with commitments expected under these Terms of Reference.

Roles and responsibilities of STAG members

Members of STAG have a responsibility to provide WHO with high quality, well considered advice and recommendations on matters described in these Terms of Reference. Members play a critical role in ensuring the reputation of STAG. Members shall be committed to the development and improvement of public health policies.

STAG members shall not purport to speak on behalf of, or represent, the STAG or WHO to any third party, unless authorized to do so by WHO.

STAG members will not be remunerated for their participation in STAG; however, reasonable expenses such as travel expenses incurred by attendance at STAG or related meetings will be compensated by WHO, as per applicable WHO rules.

STAG members are expected to commit to invest a substantial amount of their time to STAG. In this context, STAG members may also be requested by WHO to participate as observers in other important WHO or partner’s meetings.

Chair and Vice-chair

WHO shall designate a Chair from among the members of the group. His/her designation may be terminated at any time by WHO, if WHO’s interest so requires.

The Chair’s roles shall include the following:
- to chair the meeting of the STAG;
- to liaise with WHO and Members between meetings.

The Vice-chair may also be designated by WHO, as deemed necessary.

Other participants

Representatives of WHO expert committees and technical advisory groups, convened by headquarters or WHO regional offices, may be invited by WHO to participate in STAG meetings.

WHO may invite additional experts, as ad hoc advisers to provide advice, including through drafting working papers and otherwise contributing to STAG discussions.

Representatives from inter-governmental organizations, as well as non-State actors may also be invited by WHO to participate in STAG meetings or in specific STAG discussions as observers and present the views and policies of their organizations.
The aforementioned categories of participants may, share information or otherwise contribute to the STAG discussions, as necessary, and only upon invitation of the Chair. They will not participate in the process of adopting the final decisions or recommendations of the STAG.

**Status and Conflict of Interest Management**

In the exercise of their functions, the members and ad hoc advisers shall act as international experts serving WHO exclusively; they act in a personal and individual capacity and may not request or receive instructions from any government or authority external to WHO. Furthermore, the members and ad hoc advisers must be free of any real, potential or apparent conflict of interest.

To this end, proposed members and ad hoc advisers will be required to complete the WHO declaration of interest form (DoI) in order to allow WHO to determine whether their participation would give rise to a real, potential or apparent conflict of interest.

A register of members’ interests and signed confidentiality undertakings shall be maintained by WHO.

In addition, in order to enhance WHO’s management of conflicts of interest as well as strengthen public trust and transparency in connection with WHO meetings involving the provision of technical/normative advice, the names and brief biographies of members (“Published Information”) being considered for participation in STAG meetings are disclosed for public notice and comment.

The comments received by WHO through this process are an integral component of WHO’s conflict of interest assessment policy and are carefully reviewed.

The list of participating members, a summary of relevant interests disclosed by them, and any appropriate mitigation measures taken by WHO relating to the management of conflicts of interests, will be reported publicly in accordance with WHO practice.

**Secretariat support**

WHO/WHE will provide secretariat support to the STAG.

**Meetings and operational procedures**

WHO shall normally convene a STAG meeting in person at least once a year. Additional regular or ad hoc meetings may be convened by WHO also through teleconferences, videoconferences or electronic communications, as deemed necessary. Members are expected to participate in most STAG meetings.

The agenda of STAG meetings is prepared by WHO – in consultation with the Chair – and shall include any subject within the Terms of Reference of the STAG, as appropriate.

The working language of the STAG meetings is English.
Reporting and recommendations

The STAG shall submit its reports to the DDG of WHO/EPR. In addition, the STAG Chair will debrief the DDG of WHO/EPR (or designee) following each STAG meeting.

If members of the STAG cannot agree on the recommendation to be made to WHO, each shall be entitled to have his/her divergent opinion reflected in or appended to the report.

All recommendations from the STAG are advisory to WHO, which retains full control over any subsequent decisions or actions regarding any proposals, policy issues or other matters considered by the STAG. WHO also retains full control over the publication of the reports of the STAG, on the website, in the Weekly Epidemiological Record and/or in peer-reviewed journals.

Information and documentation

The information and documentation to which STAG members, ad hoc advisers and observers may gain access in performing STAG related activities will be considered as confidential and proprietary to WHO and/or parties collaborating with WHO. To protect the proprietary and confidential nature of such information, all members, ad hoc advisers and observers will therefore be required to sign an appropriate confidentiality undertaking and members and ad hoc advisers shall further be required to agree to provisions on ownership, as per WHO practice.
Annex D. Report of the review of Declaration of Interest

Meeting Date: 8-9 May 2018  
Final Number of Participating Experts: 13 (including the Chair)  
Final Number of Experts with disclosed interest: 4

The WHO Health Emergencies Programme hosted an ad hoc preparatory meeting for the establishment of the Strategic and Technical Advisory Group for Infectious Hazards (STAG-IH), from 8 to 9 May 2018. Thirteen experts (including the Chair) from various areas of expertise have been invited to attend in their personal capacity. All the experts have completed and submitted their duly completed Declaration of Interest (DOI) and Confidentiality Undertaking forms.

They are (alphabetical order):

Balkhy, Hanan
Bedford, Juliet
Enria, Delia
Giesecke, Johan
Heymann, David (Chair)
Ihekwezu, Chikwe
Kobinger, Gary
Lane, Clifford
Oh, Myoung-don
Sall, Amadou Alpha
Schuchat, Anne
Ungchusak, Kumnuan
Wieler, Lothar

In accordance with WHO policy, the Secretariat reviewed and assessed the declarations submitted by the above noted experts.

The following four experts declared interests considered relevant for the purposes of the STAG-IH:

- Bedford, Juliet: currently serves as Director of a for-profit entity ‘Anthrologica’ which is a research-based organisation specialising in applied anthropology in global health and consulting; she has received research support or other funding from WHO, UNICEF, UNMEER, IFRC, New York University amounting to $554,000 as well as non-monetary support. Funding has been directly received from WHO in 2016 for Zika related work.
- Giesecke, Johan: has an active consultancy contract with ECDC, amounting €40,000 for ADVANCE project, related to efficacy and safety of newly introduced vaccines in the EU.
- Kobinger, Gary: is receiving research funding from NIH (Immunotherapeutics against viral haemorrhagic fevers, $2.5 million), Canadian Institutes of health Research (CIHR, CCHF animal model development, vaccine and immunotherapy, CAD$1.4 million), has received research funding from CIHR (Determinants of virulence and transmission in the West African Ebola outbreak, 2017, CAD$ 229,000), Defence Advanced Research projects Agency (DARPA, 2017, Immediate and persistent protection against EBOV, $2.3 million), GeneOne LifeScience (commercial entity, 2017, MERS and Zika vaccine trials clinical samples testing).
- Lane, Clifford: No personal value but currently receives in-kind support to research with drugs and/or reagents from Gilead, Merck, MappBio, Johnson and Johnson, GlaxoSmithKline.

Following the recommendations of the Office of Compliance, Risk Management and Ethics (CRE), STAG-IH Secretariat will perform further due diligence before the next face-to-face meeting. Due diligence work, in combination with DOI received, will serve as a basis to formalize STAG-IH membership.