

Simulation Exercise: Science Diplomacy – Promoting Open Science in Global Health

GUIDANCE NOTE

This simulation exercise was specifically developed for the workshop S4D4C Science Diplomacy Workshop in Vienna entitled “Science Diplomacy Dynamics – Opening Science! Opening Diplomacy!”. The original version of this simulation exercise was developed by Michaela Told and Katja Mayer, with the support of Maria Josten and Viktoria Holler, and has been shortened and anonymized for the purpose of making the exercise publicly accessible.

Disclaimer

Context, country information and stakeholder positions are closely linked to the actual thematic discussions on open science and data sharing in the case of health emergencies, however, many fictional elements were introduced for the purpose of this simulation. Therefore, please do not consider or reproduce any of the positions as real.

Objective

This simulation exercise aims at providing insights in the complexities of consensus building around data sharing and open science. It wants to bring to the fore the different positions and interests of stakeholders and their many factors influencing decision making. This exercise is focused on improving an understanding of the importance of the process and the skills needed, and not on the substantive knowledge on data sharing. The latter should have been strengthened through the earlier presentations.

Facilitator

The facilitation of this simulation exercise is crucial to ensure a successful learning path. It is expected that the facilitator is

- a) experienced to lead groups and to extract learning through group process;
- b) sufficiently knowledgeable about global health and data sharing; and
- c) familiar with the dynamics of negotiation and consensus-building processes.

Methodology

The methodology applied in this simulation exercise is inductive, i.e. participants are to learn by experiencing the suggested roles in an imagined task force meeting. In order to conduct this exercise meaningfully three hours are to be allocated with sufficient time at the end for the debriefing and the synthesis of learnings.

A suggested timetable is as follows:

- 30 min – Introduction to the simulation exercise and group formation
- 30 min – Preparation of the roles in working groups
- 75 min - Simulation in a “fishbowl” methodology, including a break of 15 minutes
- 45 min – Debriefing and synthesis of learnings

The simulation exercise is conceptualized for a maximum number of 25 participants. The participants have to be divided by the facilitator in five groups, each group playing one particular role as suggested in the following pages. The group composition should be a balanced mix of different sectors, backgrounds, functions, seniority level, and gender, and thus, carefully planned. The group composition should not be done randomly and thus, the facilitator needs to think through the group composition in his/her preparation for the simulation.

Before distributing the confidential instruction on the different roles to each participant, the facilitator has to first explain the contents of the simulation exercise and how it is conducted. All participants have to be fully briefed before they receive the following documents and their role descriptions.

Once this introduction is done, each participant receives the following documents:

- A copy of the case description (1 page)
- Pages 20 – 23 on “Health Emergencies “ of the 13th Global Programme of Work (see Annex 1)
- Pages 30 – 41 on “Data” and on “Research and Innovation” of the 13th Global Programme of Work (see Annex 2)

In addition, the facilitator needs to announce the group composition and to distribute to each participant in each group the respective confidential role description. The confidential instructions should not be shared with others outside their group.

The simulation itself can be conducted in different ways, however, it is suggested here to use the “fishbowl” methodology. This means that each group (e.g. all representatives of the Ministry of Health, all representatives of the National Public Health Institute, etc.) has 30 min time to prepare their position within their group. One representative of each group will then be delegated to attend on behalf of their organisation the task force meeting and to defend their interests and position. This then constitutes the actual role play and simulation exercise which can take up to 60 min and can be carried out in different rounds. The delegated group member in the task force meeting can rotate. If time permits, the task force meeting can be suspended, and time will be allocated again for internal group discussions to align their arguments and the task force meeting will resume with a different designated representative. The group members who are not actively participating in the task force meeting should take note of any important observations or developments concerning the meeting process and skills used. This will facilitate the synthesis of lessons at the debriefing session.

The debriefing session can either be conducted through a group reflection or in the plenary. Overall, the task of the facilitator is here to collect observations and learnings from the session. Some likely observations will concern the following thematic blocks:

- The importance of preparations
- The crucial role of the chairperson
- Skills that are required to move discussions forward
- Strategies and tactics in consensus-building
- Other factors that are influencing consensus-building processes

Simulation Exercise: Case Description

1. Background

Tigerland is a country with a population of 12 million inhabitants. Even though a relatively small state, it has positioned itself internationally as an important diplomatic actor.

Tigerland is a Member State of the World Health Organization and has always been very active in the World Health Assembly on the agenda item of infectious diseases in emergencies.

Tigerland is also a leader in its region and wants to set “data economy” as its priority to position itself regionally and internationally. This includes the utilisation and automatization of data, but also a human-centric approach where the consumer should be in the driving seat. In this context, access to data should be increased, quality improved and interoperability of data encouraged. Tigerland is following the principle of global data commons, emphasizing that one pillar of successful data economy is the creation of a layer of basic knowledge as digital commons accessible and reusable to all, to accelerate the application of publicly funded scientific knowledge for social goods. Thus, Tigerland understands that success of data economy relies on international negotiations on data sharing (“data diplomacy”).

2. The task

WHO’s 13th General Programme of Work (GPW) was adopted at the 71st session of the World Health Assembly in 2018 as the key strategic document for the years 2019 – 2023. One priority within the GPW is to reach “1 billion more people better protected from health emergencies”. This goal is linked to the Health Emergencies Programme which was set up after the West African Ebola outbreak within WHO. The 13th GPW has a dedicated section on “Health Emergencies” (see GPW, pages 20-23) and on “Data” and on “Research and Innovation” (see GPW, pages 39-41) which both allow good entry points to strategically combine Tigerland’s priorities.

The **Head of International Affairs of Tigerland’s Ministry of Health** is invited by WHO to attend an informal intergovernmental consultation on defining targets and indicators for the 13th GPW in health emergencies. In preparation of this intergovernmental consultation, he/she is calling for a **task force meeting at national level** to filter the priorities of important stakeholders, but also to receive concrete input on how international scientific cooperation in health emergencies can be improved.

International scientific cooperation concerns, among others: international cooperation schemes (e.g. funding opportunities with researchers from affected countries), RAPID data and workflow sharing; pre-publication information sharing; sharing of clinical trial data and of epidemiologic data; ethical considerations; adequate regulatory frameworks; ensured data quality; adequate political and cultural sensitivity; and open access knowledge platforms.

The task force meeting is chaired by the Head of International Affairs of Tigerland’s Ministry of Health and is attended by representatives from the National Public Health Institute, the private sector, an international foundation, and academia.

**Confidential Instruction:
The Head of International Affairs
of Tigerland's Ministry of Health**

Your background: You are the Head of International Affairs of the Ministry of Health. You usually represent Tigerland at the World Health Assembly (WHA) and you are regularly kept informed by WHO on the progress in the implementation of the 13th GPW. An informal intergovernmental consultation will be held on setting targets and indicators for the 13th GPW in health emergencies in three weeks and your Ministry wants to continue to give active support to WHO's programme on "Health Emergencies".

In order to prepare for this meeting in the best way possible, you have decided to invite different stakeholders in the country for a task force meeting on two weeks to help you prepare for the intergovernmental consultation. This preparatory meeting is for you of high importance because you are only three months in the current position as Head of International Affairs and you want to prove yourself in this position internationally. You have worked previously in the Ministry of Foreign Affairs but have been seconded from the Ministry of Foreign Affairs into this position at the Ministry of Health.

Your focus: You want to keep the focus on the priority of your Ministry on health security but at the same time, you want to strategically also prioritise "data economy". You are particularly interested to strengthen all dimensions of international scientific cooperation in health emergencies, especially the use of open access procedures and initiatives, because you consider this as a major gap in all available documents. Yet, you have also a strong pharma industry in the country which has an important voice and is important for your economy.

Your role: You are chairing the task force meeting and as you are new in the position, you hope that this meeting will equip you with the necessary background information and arguments so that you can take a lead role in the WHO's informal intergovernmental consultation.

**Confidential Instruction:
The Division Director of Infectious Disease Control
of the National Public Health Institute**

Your background: You are the Director of the Division on Infectious Disease Control of the National Public Health Institute (NPHI). The National Public Health Institute is a well-established research institution that operates under Tigerland's Ministry of Health and is closely linked to the Medical University of Tigerland. Its primary functions are to promote the health and welfare of the population and to prevent diseases. The Institute also monitors all health services throughout the country in terms of availability, quality, productivity, efficiency, and impact. It is an important institution in regard to public health in Tigerland with branches in the big cities throughout the country.

As Director of the Division on Infectious Disease Control, you are aware of the importance of your position as it relates to the national security in the country and you perform research to combat infectious diseases through serum preparations and vaccines in Tigerland. You rely on open government data on public health shared by the government representatives and open research data shared by medical researchers in countries with regular infectious outbreaks. You regularly publish your results in high impact journals. This is important not only to boost your own career but also to position the NPHI worldwide. However, neither time and resources allow you to prepare your research data in a way that they can be shared or used for the wider dissemination nor the journals allow reprints and deposition of data before the publication.

Your focus: You suffer from the restrictive policies of the high-impact journals, such as long embargo periods, poor incentive or reward structures, paid access to older publications because you see the limitations research colleagues in low- and middle-income countries face in this regard.

Your role: You are participating in this task force meeting because the topic of health security and data economy is at heart of your work. Therefore, you find the initiative of the newly appointed Head of International Affairs of Tigerland's Ministry of Health commendable and you want to support her/him as much as possible. You see the meeting as an opportunity to prove to your colleague at the Ministry of Health that data sharing is scientifically needed and political relevant.

**Confidential Instruction:
The Head of the Open Research Department
of an international Foundation**

Your background: You are the Head of the Open Research Department of an international independent charitable Foundation. You campaign for better science and health research. One of the biggest challenges you want to tackle through the Foundation is to better prepare for the next epidemic. Your Foundation invest in vaccine development, behavioural projects, social science research, and in advocacy and public engagement.

You have been for a number of years in the position as Head of the Open Research Department and you have been an innovative leader with a background in bioinformatics. You have promoted open science successfully and lobbied for the Joint Statements on data sharing in public health emergencies between communities, public and private sector, researchers, medical staff and agencies of development cooperation. As Foundation, you specifically support researchers who develop tools that facilitate the re-use of data.

Your focus: Your primarily goal is to find a way to incentivize high quality data production and data sharing, but also to promote open access policies. As research charity you already do so but you want others to join you in this effort. To help this, you are trying to “lead by example”.

Your role: In this meeting you want to bring others on board to also promote open access policies. Therefore, you see the WHO informal intergovernmental consultation on targets and indicators as an excellent opportunity to have an immediate worldwide outreach and acceptance of your own advocacy efforts on open access and data sharing policies.

**Confidential Instruction:
The General Manager of a Pharma company**

Your background: You are the General Manager of pharma company that has been operating in Tigerland the past 30 years. You are investing in Research & Development (R&D) of an Ebola vaccine. Science drives the discoveries of your company and the technologies your company is developing.

Ebola is a haemorrhagic fever that causes severe diarrhoea, vomiting and bleeding and spreads from person to person through direct contact with body fluids. It kills around half of those infected. Vaccines have been in development already several years and although many different vaccines against Ebola already exist, your company was able to test its vaccine during the Ebola 2014 outbreak. It then has shown to be very effective at preventing infection. Since then, you have been able to receive approval for your vaccine from the Medicines Agency in your region and thus, you are now in the position to stockpile and distribute it more widely.

Your focus: Your interest in this meeting is two-fold: First, as General Manager you have an interest in Tigerland to purchase the vaccine for distribution in low-income countries as part of its development cooperation programmes. Second, you are well aware that the research into hemorrhagic vaccine and development must continue to develop a second- and third-generation vaccine. This would then have the potential to offer longer-lasting immunity, target more than one species of Ebola and be easier to store.

Your role: To keep the competitive advantage, in the meeting you insist on keeping the current system based on intellectual property rights and patents resulting in competition and embargoes access because only in this way further R&D can be guaranteed, data quality assured, and new developments possible.

Confidential Instruction: The Representative of CODATA

Your background: You are the Representative of the Committee on Data for Science and Technology (CODATA) which is a sub-committee of the International Science Council (ICS). CODATA exists to promote global collaboration to improve the availability and usability of data for all areas of research. It supports the principle that data produced by research and susceptible to be used for research should be as open as possible and as closed as necessary. CODATA wants to strengthen international science for the benefit of society.

Your focus: For you, research data should be “intelligently open” and FAIR (findable, accessible, interoperable, reusable). FAIR data helps to use data at scale, by machines, harnessing the technological potential. Research data have a considerable potential for reuse, reinterpretation, or use in different studies and therefore, you promote open data platforms. You also firmly believe that publicly funded research and research data produced in this context are a public asset and hence, need to be shared.

Your role: You are in this meeting to make research data on infectious diseases more widely available, more usable, and more interoperable. This includes also the improvement of collection, critical evaluation, sharing and storage, and retrieval of relevant data. You are convinced that it is fundamental to work with an agreed set of vocabulary and standards, that you need to integrate social science, geospatial and other data and that you need an effective interface of research data and monitoring.