WHO Consultative Meeting on Science and Technology Foresight Function for Global Health,13 July 2021

Report

World Health Organization

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Executive Summary

On 13 July 2021, WHO held a virtual consultative meeting with 53 participants. Participants were invited to share their views and perspectives to assist WHO in the development of the WHO science and technology foresight function. Following the opening of the meeting by WHO's Chief Scientist, Dr Soumya Swaminathan, and a briefing by the hosting Research for Health Department, participants discussed and exchanged views in three sessions.

The effort to establish a foresight function was widely welcomed.

The value of networks and networked approaches were highlighted to confront dynamic complexities, uncertainties, and global challenges in concerted and coherent efforts within the organization as well as in partnership with other UN agencies and the wider foresight ecosystem in the private and public sector. Network and collaborative approaches were also highlighted in terms of exploiting synergies and lower high resource demands.

Engagement with a variety of stakeholders was discussed as a critical feature to increase rigour, global perspectives, representativeness, and impact on decision making and implementation. However, although participation is necessary it is not sufficient to ensure equity and representation. A critical engagement with assumptions and conceptual framing as well as the mix of appropriate tools and approaches is important.

The engagement of various actors within and across the organization was highlighted as a critical factor to a successful foresight function to co-ordinate a coherent forward-facing posture and strategic planning.

Background

Advances in science and technology (S&T) hold great promise and hope for new and improved ways to address global health and support healthier populations worldwide. Science and technology play an important role in working towards WHO's 13th General Programme of Work to achieve the triple billion targets.

WHO strives to remain breast of new developments in relevant areas of research, science and technology to proactively identify, anticipate, and shape issues that hold great promise for global health. The Global Health Foresight function was established in the WHO Science Division to carry out this task and to assist member states to engage in futures-thinking and built it into their strategic health planning frameworks.[1] In order to support countries doing so, a particular emphasis is placed on integrating foresight into the work of WHO's regional and country offices, helping to build health systems today, future proof to the challenges of tomorrow.

The Global Health Foresight function in the Science Division aims to address the following areas:

i. strengthen capabilities for the early identification of trends or advances in science and technology with notable impacts on public health;
ii. generate country foresight and scenarios through structured, transparent processes that help identify how these trends might affect health and health systems in countries; and
iii. develop strategic options to prepare future health systems to take advantage of opportunities, and proactively confront risks and challenges, and informing global health policy.

WHO's Science Division is working with various stakeholders, including international and regional organizations, technical experts, and other partnerships. It is important that the foresight function provides timely, useful, and actionable outputs relevant to all levels of the organization, member states, as well as the global community.

As part of the WHO Foresight function, horizon scans are an ongoing and iterative engagement to explore and identify key topics and issues arising from developments in various scientific and technological areas within the next two decades. The Research for Health Department, organized two horizon scanning exercises to identify areas that are likely to have significant implications for public health and so-called dual-use research of concern. Alongside the horizon scans the department is developing a WHO Global Guidance Framework to provide Member States and other stakeholders with measures to promote the responsible use of the life sciences and to protect against the potential risks caused by accidents and misuse.

[1] WHO "Monitoring emerging technologies and building futures-thinking – WHO Foresight" https://www.who.int/activities/monitoring-emerging-technologies-and-building-futures-thinking

Other forms of foresight have been used by WHO to generate recommendations for WHO response and support for countries addressing COVID-19.[2]

[2] See, for example: Gariboldi, Maria Isabella, Vivian Lin, Jessica Bland, Mallika Auplish, and Amy Cawthorne. 'Foresight in the Time of COVID-19'. The Lancet Regional Health - Western Pacific 6 (1 January 2021): 100049. https://doi.org/10.1016/j.lanwpc.2020.100049.

Meeting objectives

This consultative meeting was organized to elicit expert and practitioner's views and opinions on the role a WHO science and technology foresight function can play, what elements are necessary, and how to ensure that the science and technology foresight function adopts an inclusive and broad perspective involving a wide range of stakeholders and views. The meeting objectives were thus to:

1. Present WHO perspective and activities on foresight,
2. Discuss and exchange on the role and function of foresight within the WHO,

   Key questions included: How can foresight shape global health? What can a WHO foresight function uniquely contribute to global health agendas?

3. Identify approaches most useful in shaping emerging technologies relevant to global health,

   Key questions included: What are the key elements for a successful foresight function? What outputs are most useful?

4. Gather different perspectives and options to maximise the impact within and beyond the institutional confines of the foresight function.

   Key questions included: How can WHO bring in perspectives and values of a wider range of actors, especially those who are normally excluded? How can foresight be integrated coherently on various levels of the organization?

The expected outcomes were the identification of:

1. A set of elements and approaches that drive an effective and sustainable foresight function.
2. An overview of approaches that will enable incorporation of diverse perspectives and stakeholders.
3. An initial set of key principles to maximise impact.

Key points of the meeting

Opening and welcome: WHO perspective and activities

On 13 July 2021, 53 participants attended virtually the WHO consultative meeting on a Science and Technology Foresight Function for Global Health. The participants were drawn from all six WHO regions, with a good gender balance and representing a wide range of perspectives from international organizations, government, academia, and non-governmental organizations.[3]

The meeting was opened by Dr Soumya Swaminathan, WHO Chief Scientist, who welcomed the participants and briefed the meeting on the role of the Science Division, which was established in March 2019. The Science Division aims to support member states in using robust and reliable evidence and provide global leadership in using science, innovation, and research to improve health and health equity. The Science Division also enables WHO to stay ahead of the curve and strengthen the engagement with the wider scientific community. There has been long standing engagement with the scientific community and in terms of monitoring science and technology in the past, notable examples of WHO's work are: the work of the Global Observatory on Health R&D[4] which brings together information and analysis on trends in funding and health and economic indicators, to identify patterns, gaps and opportunities; the work of the committee on human genome editing that critically engages with ethical and social dimensions of technical possibilities[5]; the recently published multi-year effort on the ethics and governance of artificial intelligence for health[6]; and engagement with normative aspects of science and technology by developing a Global Guidance Framework on the Responsible Use of the Life Sciences.[7] This engagement is critical to WHO's foresight work because advances in science and technology can be leveraged to create a better future. Dr Swaminathan highlighted that we can choose the direction and the pace with which we want to pursue particular pathways. WHO's Science Division created the foresight function in order to identify the choices and to harness the power of science and innovation. The foresight function allows the adoption of a proactive, forward-facing position to monitor science and technology and opportunities for global health and integrate the findings and communicate their relevance. Whilst looking ahead it is also necessary to be mindful of potential negative impacts that raise ethical challenges, have unintended consequences, or developments that are prone to mis-use, or potentially used for nefarious purposes.

Participants were invited to share their views and perspectives to assist WHO in the