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Using science, technology and innovation to close the gap on Sustainable Development Goal 3, good health and well-being

Statement submitted by

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High Level Panel: "Using science, technology and innovation to close the gap on SDG3 on good health and well-being".

Paulo Gadelha

A striking effect of the COVID-19 pandemic was to show that health may be a significant anchor for shaping a sustainable and inclusive economic recovery.

Health is a collective and individual right that articulates social and development policy, combining growth, innovation, equity, and social inclusion, and responds for 10% of Global Expenditure.

Innovative policies and all of government approach should mobilize STI within health systems and articulate, in a win-win fashion, the productive basis of the Health Economic and Industrial Complex (CEIS) to social and health priorities. In the last decade, Brazil experienced a promising case that should be noticed.

As to the focal points of this panel, I would like to bring the following assumptions:

Different layers of health care, from primary to highly complex services, are closely intertwined and the whole range of innovation is relevant to all these integrated levels.

We also must keep in mind that Universal Health Coverage (UHC) is a key driver for achieving all SDG 3 targets. Considering this framework, the theme of this High-level Panel should be approached having Universal Health Coverage as its main unifying attractor.

It's important also to highlight that health innovation has specific characteristics that condition R&D and deployment, such as dependency on health professionals and institutions; strong role of governments and regulatory mechanisms, and a non-linear relation between innovation and health costs. In this last case, technological breakthroughs with high aggregate value usually leads to increasing inequality.

Another feature is that emerging technologies plays a major role to the future of health care and have a strong disruptive role. Thus, a major challenge is to steer these technologies in order to reinforce the effectiveness of health care, the integrity of universal health systems and to comply with ethical questions.

In the public health dimension, similar to "precision medicine", there is a need to shape a "precision public health" that uses population-specific data to provide the right intervention to the right population at the right time.

Moving to the challenge of regional and global STI cooperation, we face important barriers: great global and regional asymmetry; divide between funding and the most pressing human needs, and lack of effective governance.

The health sector, with WHO leadership, designed a comprehensive approach in accord to TFM principles: mission-oriented Innovation; evidence-based policies; open science; genomics and data sharing; common platforms for R&D; regulatory, procurement, governance, and deployment innovations.

The speed of innovation, as in the case of vaccines was made possible due to the convergence of significant STI funding; role of the entrepreneurial state; sharing of genomic banks; emerging technology, such as gene editing, AI and big data processing; solidarity clinical trials; regulatory fast track and global initiatives to mitigate inequities of access and efforts to increase production. So, we have a striking case where "emerging technologies" are closely dependent for their deployment on existing productive basis coupled with innovative policies and a strong science and society interface.

On the negative side, there is an increase in inequality and a "War on Vaccines", which oppose values of vaccines as common goods to their values as commodities and geopolitical struggle.

Finally, I would like to bring some bullet points:

- The quest for reducing inequalities and protecting vulnerable populations demands building a "sanitary conscience" and effective tools for social participation on the shaping of health policies and health care
- 2. The optimal use of STI for SDGs rely strongly on structural mechanisms, including national advisory board; strengthening local STI ecosystems and educational standards; citizen science and governance tools.

- 3. Recognize health as a significant anchor for sustainable development and reflect on how this may inspire other major issues related to the 2030 Agenda.
- 4. Foster the role of health sector and all of government approach to integrate local systems of Innovation to health systems.
- 5. Promote Health-related STI for SDGs Road Maps.
- 6. Problematize how "lessons learned" from COVID-19 may apply to tackle SDGs.