3 GOOD HEALTH AND WELL-BEING

MODERATORS

Mark Smolinski and Wendy Taylor

November 2020

The 17 Rooms initiative is convened by the Brookings Institution and The Rockefeller Foundation to stimulate near-term cooperative actions to advance the 17 Sustainable Development Goals (SDGs). This document summarizes insights and actions that emerged from the working group discussions in Room 3 during the 17 Rooms 2020 flagship process. The text was independently prepared by the Room's Moderators and participants, in response to the common question asked of all Rooms in 2020: "In light of recent crises linked to COVID-19, systemic racism, and other urgent challenges, what are 1 to 3 actionable priorities over the coming 12-18 months that address near term needs while also making a decisive contribution to protecting or advancing your Goal's 2030 results? What actions can members of your Room take to advance these priorities?" Corresponding documents prepared by all the other Rooms are available here, alongside a synthesis report prepared by the 17 Rooms secretariat.

The problem

Pandemics are existential threats where *every human being is impacted, yet each of us can make a difference.* The current COVID-19 crisis has made the world keenly aware that we were not prepared for a pandemic. With changes in trade, travel, climate, and land use, infectious disease threats are increasing and require collective action to address this reality.

The capacity to collect, analyze, and put to use reliable and consistent data must exist in all countries for true global health security from epidemic and pandemic disease. Health officials can't stop what they can't see. Timely data and insights are critical to making effective decisions, particularly in the face of uncertainty. Unfortunately, enormous gaps exist in our global capacity to apply outbreak science to decision making, from early in an outbreak through the course of a pandemic. Whether data is needed for risk assessment, timely response, or improved modeling and forecasting, we are decades behind where we could be given the advances in science and technology. As the COVID-19 pandemic clearly demonstrates, inequities in data insights are delaying the application of the best science across the spectrum of prediction, prevention, detection, and response. The human, animal and environmental sectors are far from integrated into the One Health approach essential to deal with new and re-emerging infectious diseases.

The opportunity

Novel data sources, innovations in disease surveillance, advances in mathematical modeling and machine learning, combined with tools such as geospatial mapping and next generation genomic sequencing can transform how we predict, prevent, detect, and respond to infectious disease threats. We need robust and aligned efforts to advance the science and practice of disease prevention and control; leverage effective collaborations among the public, academic, and private sectors; and develop scalable tools that can be used by health officials and individuals across the world. The existence of regional organizations, such as Economic Community of West African States (ECOWAS), Pan American Health Organization (PAHO), and Connecting Organizations for Regional Disease Surveillance (CORDS) with common borders also present great opportunities for rapid detection, reporting, and mutual response to these threats.

Our solutions

We call for an increase in the global capacity to collect reliable and consistent data, analyze it quickly, and convey critical information to the 'front lines' for precision response. This will require us to catalyze innovative financing and governance structures to transform local, national, and global epidemic intelligence. We must utilize health professionals' expertise within each country to be part of the process, provide locally informed opinions, and share their experience and knowledge to be more anticipatory and proactive. Accelerating detection and sharing of information of threats within regional blocs increase the speed for contextualized and effective response. Our proposed solutions revolve around improving three core aims: data access, data insights, and data use.

Data access

Data quality and access are huge challenges. The transaction costs to sharing data are often high for both data owners and data users. We need to generate and improve access to real-time data in a safe and secure way, with an emphasis on quality, timeliness, and transparency.

- Establish 21st century Sentinel Data and Analytic Networks that continuously focus on new and emerging pathogens. Coordinating and connecting the many existing diseases monitoring and forecasting entities to capture and exploit information may be more efficient than creating a new entity. To this end, it will be critical to collectively determine and leverage best practices between the different entities, while providing assistance to build new infrastructure where needed, modeled on regional examples for success.
- Support data sharing platforms, such as datapartnership.org run by the World Bank and IMF, that - facilitate the safe and secure sharing of a wide variety of data (e.g., Facebook, Twitter, Cubeiq, and Mapbox). Sharing data as a public good has tremendous value for advanced analytics and complements rather than overrides data sharing mechanisms and guidelines at the national level.

Data insights

Outbreak analytics are fragmented and underfunded, resulting in tremendous untapped potential. We only have a nascent understanding of how data analytics can answer key questions in an epidemic, hindering our capacity to better predict, prevent, detect, and respond to emerging threats.

- Capitalize a new funding collaborative to push the boundaries of outbreak analytics innovation and deliver data-driven intelligence to the front lines. Such a fund can connect governments, academia, tech companies, and donors to provide sustained support to incentivize and rapidly accelerate the development, testing, and scaling of outbreak analytics. The fund could serve both as an analytics accelerator, sponsoring challenges and building cross-sector collaboratives, and an investor in new tools and platforms.

Data use

We need transformational capabilities in how we collect, clean, and analyze data to capture insights and make policy decisions. Such capacity is needed along the complete pipeline of information required to predict, prevent, detect, and respond to emerging threats.

- Create National Infectious Disease Analytics and Forecasting Centers to rapidly advance early detection, adaptive and precision response, and modeling and forecasting capabilities. These Centers could gather reliable and trusted information from local, national, and regional providers on a) causative agents, b) affected populations, and c) overall context of occurrence. This repository is a virtual place where risk assessments are stored and shared discussions and interactions among experts are enabled.
- Support local and national accelerator programs by nurturing effective partnerships on the ground to facilitate successful training programs, strengthened and sustained by a train-the-trainer approach.

Critical points and principles for all solutions

Start with the end user. Give due consideration to what decisions are being addressed and who is making them. Examine the types of decisions and determine the metrics needed to gauge how they can best be realized. Connect frontline healthcare workers with hospitals, laboratories, and public health institutions to allow for coordination, data sharing, and real-time analytics.

Be smarter about investments. More money and more data will not lead to better performance on its own. Better management skills, effective governance, shared risk management structures, and incentives for the collection and timely sharing of information are required to make the best use of any funds allocated for data acquisition and analytics. Create mechanisms to reward and incentivize collaboration.

Distinguish insight vs. data. Data on its own without the useful insights driven by local knowledge is not as helpful. Data paralysis can occur from too much information and not enough understanding of how to use it to plan or take appropriate action. Contextual information is needed to assess the risk in relation to an event and define potential actions.

Ensure equity and inclusivity. Leverage and support local organizations, women and minority groups, NGOs, and community and tribal leaders to build trust in how and what data need to be collected and analyzed for the benefit of all. Ensure equity for citizen-facing tools such as mobile applications, informational materials for health safety, education programs, etc. Developing systems that preemptively identify high-risk populations, determine major vulnerability factors, and address the additional socioeconomic and health-related factors is our best bet.