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Commentary

Healthcare Systems Moving Toward Data Governance-Centered Model: India's G20 Presidency in the Wake of COVID

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The COVID pandemic has had an unprecedented impact on health systems across countries. Both the public and private healthcare sectors have struggled and are still struggling to respond to the impact of the pandemic. The struggle lies in adopting diverse healthcare responses, involving cutting-edge technological tools and innovations in the areas of public health, medicine, and wellness, to make prompt decisions to address the after-effects of the pandemic. In such a scenario, digital health has emerged as a solution to healthcare challenges. It encompasses areas like wearable technology, telehealth and telemedicine, mobile health, health information technology, and personalized medicine (Guo et al., 2020). However, revisiting and reopening the realm of 'digital health' in policy and public discourse is an emerging concern (Banner, 2020). As the healthcare world becomes increasingly digitized, care and service providers rely more on data to drive their decision-making. This has made data governance in healthcare a growing interest, as health information becomes an essential tool for diagnosis, treatment planning, and after-care. However, it is now the responsibility of healthcare organizations to guarantee that patient data is handled and managed appropriately to uphold patient privacy and the confidentiality of data governance, as the latter can provide users with a great deal of power.

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India's G20 Presidency and Health

India has assumed the presidency of the G-20 group in 2023, at a time when the world is still grappling with the aftermath of the COVID-19 pandemic (Reuters, 2020). India's leadership role in the G20 is critical in shaping the post-pandemic global economic recovery and addressing the challenges that have arisen due to the pandemic. Health remains a central agenda for India's G20 presidency, and India is committed to using its presidency to initiate policy dialogues and response strategies to ensure quality, affordable, and inclusive healthcare for all. One of India's top priorities for its G20 presidency is to ensure access to vaccines and healthcare for all countries, especially those in the developing world.

In a post-Covid world, healthcare systems across the globe are developing short, medium, and long-term response strategies to deal with the after-effects of the pandemic (Murray et al., 2020). For a developing economy like India, it is an appropriate time to make a tangible shift towards holistic technology and data-driven digital tools for pandemic preparedness, health system strengthening, and tackling antimicrobial resistance. This can further engage both public and private healthcare systems across the country in facilitating policy dialogues, technical assistance, and training on specialized policy and response interventions at different levels (Khurana, 2021). Data governance spans multiple networked entities that require a policy framework that is clear, continuous, and well-defined. Along with privacy and security concerns, there is a need to address the unexpected outcomes of healthcare in AI, such as clinician deskilling, algorithmic bias, the "regulatory vacuum," and lack of public engagement (Winter, 2021). To build a resilient health system and communities, there is a need for dynamic consent, early public participation, and oversight mechanisms that oversee the flow of data to maintain transparency and accountability (Veronica et al.,

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2022). An alignment of expertise, leadership, and practices is required to synthesize knowledge and experience to assess capacities and avenues of data governance and the way it can make healthcare systems inclusive and accessible in terms of better patient experience and cost. Here, India's G20 presidency has a constructive role to play.

Prioritizing Digital Health: Key Focus Areas

Digital health has evolved rapidly since its inception (Frank, 2000). In India, healthcare data governance is relatively a new concept in comparison to the West. The Ministry of Health and other public agencies are working hard to develop policies and regulations to ensure the safe and secure use of healthcare data (Mukherjee, 2020). The digital health concerns under India's G20 priorities focus on creating a safe and secure digital ecosystem to elevate the handling, storing, and sharing of real-time patient data 24x7 across hospitals and healthcare institutions to the next level with clearly defined policies and procedures. The NDHM (National Digital Health Mission) aims to create a national digital health ecosystem, which includes a personal health ID for every citizen, a digital repository of health records, and a federated health data architecture to enable secure data sharing among different stakeholders (Ministry of Health and Family Welfare, 2020).

The pandemic has taught both developed and developing economies across the globe that we live in an interdependent world. The existing challenges in health systems involve exploring the potential of the enormous amount of personal patient data available with various health agencies. Their collection, storage, analysis, and security (Ye, Zhou & Wu, 2020) will help a populous country like India focus on long-term measures to build a resilient health governance system to prevent, prepare for, and respond to future health-related challenges while maintaining essential health services. India's prioritization of digital health under its G20 presidency is pressing for the use of cutting-edge digital tools for healthcare with a more specialized and efficient oversight system to identify irregularities and opportunities in real-time, fitting well within the data governance plan. This requires an efficient and intentional movement of data throughout a healthcare system.

India has made significant progress in recent years, with the launch of the National Digital Health Mission (NDHM) in August 2020. Data governance is the process of managing the availability, usability, integrity, and security of the data used in healthcare systems. It includes policies, procedures, and technology that ensure data is collected, stored, analyzed, and shared in a safe and secure manner (HealthIT.gov, 2021). The pandemic has made many low- and middle-income countries in the Global South realize that they have little means to protect their people, and there is a dire need to build local-level capabilities to ensure prompt diagnosis, vaccines, and medicines for the people within days of a health threat's emergence. With the G20 India presidency, the country has an opportunity to explore the new post-pandemic health realities with a clear focus on various policy and response strategies to make public healthcare services more accessible to citizens in terms of cost, security, and data privacy issues. The first Health Working Group meeting under India's G20 presidency, held in January 2023, emphasized the importance of data governance in healthcare, the need for global cooperation to address health challenges, and the importance of investing in healthcare systems to improve health outcomes. It further urged for new policy directions to address the emerging and evolving structural and institutional shifts taking place, aiming to make healthcare services safe and convenient with the help of empowered frontline care leveraging technologies (G20, 2023). In the meeting, healthcare experts opined that to make healthcare services more inclusive and accessible, healthcare organizations and institutions, both public and private, need to orchestrate the myriad interconnected changes required to design, implement, and sustain digitally-enabled healthcare delivery platforms (Watts, 2019).

The Policy Dialogues

Based on the preliminary discussion held during the Health Track Working Group meeting of the G20 India presidency, health experts pointed out that emergency preparedness is an overarching priority that requires the building of resilient health systems worldwide to protect people in the face of similar crises. Public health professionals believe that India's G20 presidency for the year 2023 presents a great opportunity for the country to emerge as a healthcare leader with a pragmatic and realistic vision to encourage new investments in medical technologies and governance. This will ensure an effective alignment between healthcare systems and the goals of inclusive and accessible health for all. The G20 chair is committed to establishing a health governance mechanism to deal with emerging public health issues in terms of budget allocation and the mobilization of financial resources (Sleigh & Vayena, 2021). Healthcare experts are emphasizing regular policy dialogues to explore more methods of financing healthcare within the limitations of healthcare expenditure. They emphasize designing and developing response strategies to address financial limitations by identifying means to enhance public expenditure on health.

The COVID-19 pandemic has underscored the importance of digital connectivity and the need to bridge the digital divide, which remains a significant challenge for many countries, particularly in the developing world (The Hindu, 2021). To mitigate the aftermath of Covid-19, it is time for India to take necessary policy directives to build a data-governance-based healthcare system to achieve the goal of comprehensive primary healthcare for all while exploring the market-driven expansion of digital health services.

The NDHM has already created a national digital health ecosystem, which includes a personal health ID for every citizen, a digital repository of health records, and a federated health data architecture to enable secure data sharing among different stakeholders (Ministry of Health and Family Welfare, 2020). The effective use of digital technologies has the potential to make the healthcare delivery system robust and accessible to deal with a pandemic health situation like COVID in the future. However, for this, it requires a regulatory framework in terms of using medical devices while implementing health governance. The present complex governance structure in the healthcare system and the intricacies involved in the setup are not enough to address the post-Covid challenges of public health. Self-governance in healthcare systems needs to be widely discussed from a policy perspective (Welcome Trust, 2020).

Conclusion

The COVID-19 pandemic has highlighted the importance of data in healthcare systems and the need for effective data governance to ensure patient privacy and security. With the presidency of the G20 group in 2023, the country has an opportunity to lead the way in promoting data governance-based healthcare systems. With an estimated market of INR 47.04 billion by 2025, growing at a compound annual growth rate of 20.49 per cent, the data governance-based healthcare market in India is set to be one of the significant sectors for investment and innovation over the next ten years. In the last five years, the Indian healthcare sector has transformed in terms of diagnosis, disease management, treatment, and prevention, and has also helped the public healthcare system better prepare for future emergencies. It is time for India to use its G20 presidency to showcase India's initiatives in terms of policy dialogue and response strategies. This effort aims not only to bridge the equity gap in access to continuous healthcare services across regional boundaries but also to position the country as an important market for various health governance services. The support from the private sector has increased economic opportunities in healthcare services by encouraging more business investments. This has also led to the skilled migration of health staff to meet international requirements. This growth has spurred the adoption of data governance-based healthcare systems in recent years. Data governance-based healthcare systems represent the future of healthcare, and with improved digital infrastructure, internet connectivity, and the adoption of data analytics and cloud technologies, Indian health governance-based businesses and services are taking significant steps towards digitalization and modernization in both public and private healthcare sectors. India's G20 presidency provides an opportunity to promote their adoption on a global scale. With effective policies, procedures, and technology, healthcare data can be used to improve patient outcomes and drive innovation in healthcare. The policy and response concerns include addressing the cost, security, and data privacy issues related to cloud-based health governance systems (Shelton, 2019). The priorities under health for India during the G20 presidency are highly concerned with developing a broad public policy consensus to increase the focus on artificial intelligence, robotics, big data tools, and analytics to solidify and strengthen India's new digital health governance system. This approach will help India not only consolidate health priorities but also identify critical areas that require strengthening.

Declaration

This article is not submitted elsewhere for publication in any form.

I affirm that the work is my own and does not contain any matter that is defamatory or otherwise unlawful, invades individual privacy, or infringes any proprietary right or statutory right.

About the Author

Pradeep Nair is a Professor of New Media in the Department of New Media and the Director of Research at the University. He worked as the Dean of the School of Journalism, Mass Communication, and New Media from 2015-2022; and as the Head of New Media from 2012-2022. His research and teaching are in the fields of critical communication theories, new media's role in shaping public opinion and behavior in the context of the state-society nexus, exploring the relationship between local media and climate change, understanding the impact of climate change on local ecologies and health communication, and governance.

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He is a member of the Planning Committee of the National Adaptation Forum and the Science Education Resource Center (SERC) at Carleton College, founded to improve education in the Earth sciences and beyond.

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