EDITORIAL

GLOBAL HEALTH AND THE ROLE OF ARTIFICIAL INTELLIGENCE

Asif Hanif

Editor in Chief: Pioneer Journal of Biostatistics and Medical Research aprofasifhanif@gmail.com

Over the last sixty years, artificial intelligence (AI) has transitioned from theoretical concepts to actual instruments with transformational capabilities for global health. Although its uses in high-income countries (HICs) are well documented, its use in low- and middle-income countries (LMICs) is still constrained¹. Recent breakthroughs and conversations are positively directing AI towards mitigating health disparities and enhancing public health outcomes in resource-limited environments. The advent of artificial intelligence has shown the exceptional proficiency in healthcare system, especially for screening, diagnosis, treatment, and management of illnesses. Machine and deep learning methodologies have made the AI systems capable to efficiently analyze medical images and identify medication components with precision similar to that of expert experts ².

Innovations like as the Apple Heart Study and mobile health efforts, including gamified applications for physical exercise, demonstrate the potential of AI to enhance precision worldwide health. The COVID-19 pandemic has expedited the integration of AI technologies, highlighting their essential function in the worldwide digital transformation of healthcare systems³. AI applications already include almost all medical specialties, including as radiology, oncology, cardiology, and infectious disease management⁴. Technologies such as machine learning, natural language processing, and expert systems have improved diagnosis accuracy and treatment effectiveness. Notwithstanding these developments, the implementation of AI in low- and middle-income countries (LMICs) encounters obstacles, including inadequate infrastructure, data quality deficiencies, and ethical considerations such as data privacy and algorithmic biases ⁵.

Artificial intelligence (AI) has remarkable potential to alleviate healthcare disparities and promote global health equity. When used appropriately, AI may significantly accelerate the achievement of the United Nations' goals related to Sustainable Development Goals (SDGs), particularly health related SGGs ⁵. With transformation of complex data into an actionable insight, the AI can make healthcare systems to draw and efficient decisions to make policy and improve global. There must be collaborative seminars, workshops and conferences on governance, health education, to incorporate AI into global health particularly in low- and middle-income countries ¹. Ethical considerations must also be taken into account for fairness, transparency, and inclusivity ².

REFERENCES

1. Brian W, Aline C-G, Stefan G, Nina RS. Artificial intelligence (AI) and global health: how can AI contribute to health in resource-poor settings? BMJ Global Health. 2018;3(4):e000798.

2. Schwalbe N, Wahl B. Artificial intelligence and the future of global health. The Lancet. 2020;395(10236):1579-86.

3. Krittanawong C, Kaplin S. Artificial intelligence in global health. Oxford University Press; 2021.

4. Hadley TD, Pettit RW, Malik T, Khoei AA, Salihu HM. Artificial Intelligence in Global Health -A Framework and Strategy for Adoption and Sustainability. Int J MCH AIDS. 2020;9(1):121-7.

5. Singh JA. Artificial intelligence and global health: opportunities and challenges. Emerging Topics in Life Sciences. 2019;3(6):741-6.

PJBMR VOL. 02 ISSUE 04 Oct – Dec 2024 | www.pjbmr.com Publisher: Medical Research and Statistical Consultancy Training Centre (SMC-PRIVATE) Limited