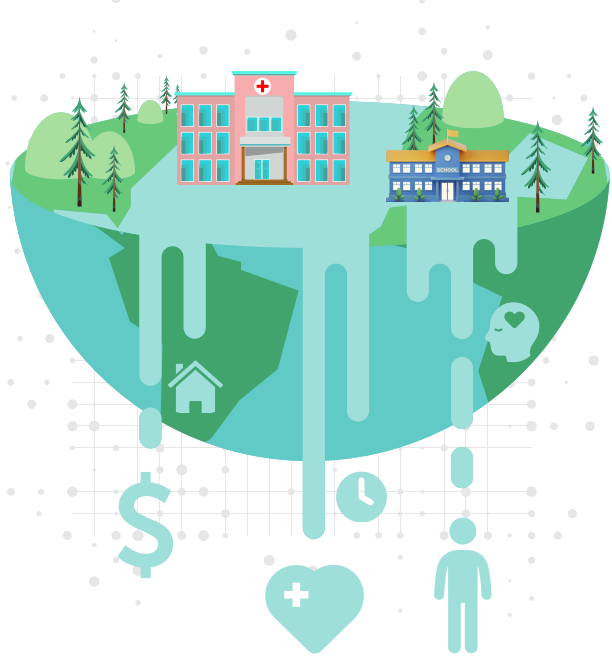# Empowering Global Health with Informatics Tools and Expertise

Prepared with care by **GLOBALLY EMPOWERED**   **UNIVERSITY of MARYLAND School of Nursing**

10M HEALTHCARE WORKER SHORTAGE

By 2030, the World Health Organization predicts a shortage of 10 million health workers globally. [1]

58% INFECTIOUS DISEASES WORSENED BY CLIMATE

58% of global infectious diseases have been exacerbated by climate-related hazards. [2]

Advancing healthcare around the world relies on the sharing of information.

We stand at a pivotal moment to establish a universal standard of excellence in health through the strategic integration of global health and informatics.

Information exchange global health directives:

- Urgent public health responses are crucial for emerging threats
- Exchange clinical and public health insights using informatics tools, resources, and expertise
- Integrate surveillance systems to benefit countries across income levels and regions
- Ongoing climate changes will persistently affect human and animal diseases, leading to enduring consequences and impending crises

The importance of collaboration is paramount.

- Improve care
- Co-create innovative solutions
- Address workforce shortages
- Promote equitable care access for all

GLOBAL HEALTH INFORMATICS DEFINED

Global Health Informatics (GHI) is the discipline focused on empowering people to use appropriate technology to provide information-based solutions with a global perspective that supports health care for all. The mission of GHI is to share informatics knowledge, applications, skills, and research, and to foster local innovations to promote the highest standards of health for all with an emphasis on low-income, low-resource countries, and the medically underserved. [3]

Joint efforts across disciplines are vital for growth.

Uniting global health efforts, with informatics tools and resources, is crucial for driving change. Collaborative efforts in key areas are vital for healthcare advancements. This section pinpoints areas where collaboration and allyship are urgent.

- Experts
- Governmental Agencies
- Non-Governmental Organizations
- Partners
- Stakeholders
- Universities
- Communities

- Capacity Building and Education
- Capacity Career Ladders and Professional Development/Upskilling
- Data Management and Analysis
- Epidemiology and Disease Surveillance
- Health Policy and Planning
- Research Collaboration
- Telehealth and Telemedicine
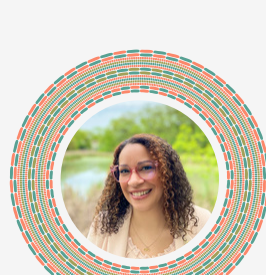- Training Development and Delivery

Proactive workforce capacity building necessary to improve at scale.

GHI needs to leverage best practices to serve as a catalyst for revolutionizing healthcare delivery. By joining forces, global health and informatics can leverage data analytics to promote population health and mitigate the risk of workforce shortages. [4]

1 **Global expansion of healthcare workers** (HCWs) can contribute to advancing healthcare solutions and workforce shortages.

2 **Hand-held technologies** offer valuable data patterns, influencing outcomes from individual to global scale.

3 **Utilizing AI and precision medicine** enhances clinical service delivery by integrating data analytics, access, implementation, and translation.

4 **Health information technology** (HIT) drives collaboration in non-traditional settings, enabling global healthcare delivery (*care anywhere*) and provision through telehealth and telemedicine.

5 **Addressing the rise of consumerism** requires support and education; involving patients through health education benefits both the workforce and communities.

6 **Addressing social determinants of health** and identifying disparities requires crucial investment in HIT.
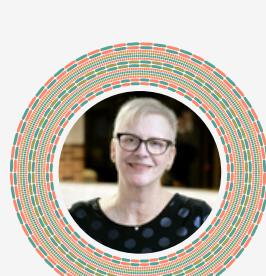
Meet the Collaborators

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Sources and Resources

SOURCE   + CONTEXTUAL RESOURCE

1. Health workforce | WHO
2. Over half of known human pathogenic diseases can be aggravated by climate change | Nature Climate Change
3. Perspectives on Global Public Health Informatics | Public Health Informatics and Information Systems
4. The global health informatics landscape | JAMIA

+ Addressing public healthcare workforce shortages | McKinsey
+ Global Public Health Informatics Program (GPHIP) Division of Global Health Protection | CDC
+ Division of Global Health Protection Infographic | CDC
+ Global Health Informatics: The state of research and lessons learned | JAMIA
+ Addressing the Healthcare Workforce Shortage | HIMSS
+ The International Patient Summary–key health data, worldwide | International Patient Summary
+ Open call for experts to serve as members of the Digital Health Competency Framework Committee