



Recognizing K-12 Education as a Social Determinant of Health in the Digital Age

The Trainee Advisory Committee of the Consortium of Universities for Global Health (CUGH) calls attention to an urgent yet overlooked issue: access to quality K-12 education as a foundational social determinant of health. While global health initiatives have historically prioritized healthcare delivery, financing, and workforce training, they have too often neglected education as a critical driver of health outcomes and as the pipeline feeding the future health workforce.

Failing to invest in equitable K-12 education perpetuates cycles of health inequity, constrains pathways into health professions, and leaves millions of young people unprepared for the challenges and opportunities of an increasingly digitalized world.

Education and the Digital Divide: Undermining Health Equity

Education is central to shaping health literacy, economic opportunity, and community resilience. Yet millions remain excluded. UNESCO estimates that 244 million children and youth are out of school globally ([UNESCO, 2022](#)). UNICEF has further warned that the COVID-19 pandemic reversed decades of educational progress, with disruptions disproportionately harming the most vulnerable children ([UNICEF, 2021](#)). These setbacks are not only educational gaps; they are long-term health inequities.

The digital divide compounds these disparities. The World Bank's *Digital Progress and Trends Report 2023* shows that while global internet access has expanded, nearly 3 billion people remain offline, primarily in low- and middle-income countries ([World Bank, 2024](#)). Beyond connectivity, stark differences persist in internet speed, affordability, and access to devices, limiting millions of students' ability to participate in digital learning opportunities.

Similarly, the World Bank's report *Bridging the Technological Divide* highlights how technological exclusion undermines resilience, limiting societies' ability to adapt to global shocks such as pandemics and climate change ([World Bank, 2022](#)). Exclusion from education and digital skills therefore translates directly into exclusion from health and wellbeing.

Artificial Intelligence and the Future Workforce

Artificial intelligence (AI) is poised to transform both education and health systems. The World Bank notes that AI may accelerate progress in low- and middle-income countries, or deepen divides, depending on levels of digital preparedness ([World Bank, 2024](#)).

If young people are denied basic educational access and digital literacy, they risk being locked out of the AI-driven health systems of tomorrow. Digital technologies can exacerbate

disparities when equity is not at the center of their design and governance ([Chidambaram et al., 2024](#)).

Building equitable digital literacy pipelines beginning at the K-12 level is therefore not optional; it is essential to ensuring that tomorrow's global health workforce reflects the diversity of the populations it serves.

Recommendations from the Trainee Advisory Committee

To address these challenges, the Trainee Advisory Committee urges the following actions:

- Global health institutions and donors should explicitly recognize K-12 education as a social determinant of health and align investments accordingly.
- Governments must guarantee universal access to quality primary and secondary education, while investing in digital readiness — affordable connectivity, devices, and curricula that integrate health and digital literacy.
- Multilateral organizations (World Bank, UNESCO, UNICEF, UNDP) should integrate education equity and digital inclusion into global health strategies, recognizing their role in achieving the Sustainable Development Goals.
- Educational institutions need to embed health, climate, and digital literacy within K-12 curricula to prepare resilient citizens and future health practitioners.
- AI developers and regulators must commit to inclusive design and governance so that emerging technologies reduce, rather than reinforce, disparities.
- Youth representation in education and digital health policymaking should be prioritized to ensure that decisions reflect lived realities and future needs.

A Call to Action

Education is not peripheral to health — it is its foundation. Without equitable access to K-12 education, the world cannot achieve health equity, universal health coverage, or build the resilient workforce needed for the future. In the digital era, the stakes are higher than ever: the divide between those with and without access to education will determine not only who becomes the next generation of global health leaders, but also who has the opportunity to live longer, healthier lives.

The time to act is now. The global community must recognize education as a central social determinant of health, bridge the educational and digital divides, and ensure that today's students, regardless of geography or socioeconomic status, have the opportunity to become tomorrow's practitioners, policymakers, and changemakers in global health.