Equity-Focused AI for Health in Low- and Middle-Income Countries

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Artificial intelligence (AI) has the potential to transform health globally. Its promise must be harnessed responsibly, particularly between high-income settings where much of the AI innovation is coming from and low- and middle-income countries (LMICs) which can benefit from the advancements, but with high risk of increasing inequity if not done with an equity focus. Gender and ethnic disparities in data and algorithm development have been shown to negatively impact access and outcomes underscoring the urgent need for AI solutions that prioritize inclusivity and equity. This presentation focuses on how equity-focused AI can address these challenges and ensure better health outcomes for all.

Global Digital Health Monitor data highlights to present (based on data from 70+ countries):

- 63% of countries have no emerging technologies (e.g., AI, Wearables, Blockchain, IoT) plan in support of public health goals.
- 73% of countries have no protocols, policies, frameworks, or accepted processes governing AI use in health services.
- 62% of countries have no or few digital health/health information standards for data exchange, transmission, messaging, security, privacy, and hardware.
- 57% of countries have no protocols, policies, frameworks, or accepted processes governing the clinical and patient care use of connected medical devices and health services.
- 80% of countries do not account for gender in national digital health strategies, policies, or governance.

Why Equity-Focused AI Matters in LMICs

1. **Bridging Gaps in Healthcare Access**: In LMICs, systemic inequities in health services disproportionately affect women and marginalized groups. AI can enhance service delivery by identifying gaps in care and tailoring interventions to those most in need.
2. **Combating Data Bias**: AI models often reflect biases present in the data they are trained on. In LMICs, women and rural populations are underrepresented in health data, leading to inequitable outcomes. Equity-focused AI ensures that algorithms are developed with diverse, representative datasets.
3. **Engaging Community Voices**: AI solutions designed with input from local communities can help address cultural and systemic barriers to health services and information, fostering trust and improving utilization among women and underserved groups.

Strategies for Equity-Focused AI in LMICs

1. **Measurement Framework and Theory of Change**: Develop a robust measurement framework to track the impact of AI interventions on equity. Use a theory of change approach to define clear pathways linking AI initiatives to measurable health outcomes, ensuring transparency and continuous improvement.

2. **Inclusive Data Collection**: Build datasets that capture gender-disaggregated and intersectional data. This helps create AI systems that are sensitive to the unique health needs of women and other marginalized populations.
3. **Co-Design with Communities**: Develop AI tools in partnership with local stakeholders, ensuring that the solutions reflect the lived experiences and priorities of the populations they serve.
4. **Ethical AI Governance**: Establish frameworks that prioritize representation in governance bodies of diverse stakeholders and promote transparency, accountability, and fairness in AI applications, with a focus on safeguarding the rights and dignity of women and other vulnerable groups.
5. **Addressing Digital Gender Gaps**: Ensure that women have equitable access to the digital tools and infrastructure required to benefit from AI-driven healthcare solutions. This includes improving mobile phone ownership, digital literacy, and internet access for women in LMICs.

Call to Action

- **Invest in Equity-Driven AI Research**: Prioritize funding for AI projects that focus on gender and inclusivity in LMICs.
- **Foster Cross-Sector Collaboration**: Engage governments, private sector, and local communities in co-developing AI solutions focused on equity.
- **Build Capacity and Leadership**: Equip women and underrepresented groups with the skills to actively participate and lead in AI development and implementation.