Cancer Care Equity Summit

Unveiling the Promise of the Cancer Moonshot to Medically Underserved Communities

NMQF and the CEO Roundtable on Cancer are bringing together a diverse group of leading organizations and individuals to serve as a combined force, a network, committed to bringing the Cancer Moonshot to Medically Underserved Cancer Care Communities.

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For more information, contact events@nmqf.org

Artificial Intelligence as a potential catalyst to a more equitable public health

Artificial Intelligence (AI) For Cancer Care Equity

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Artificial Intelligence as a potential catalyst to a more equitable public health

In this presentation

- The current landscape
- AI for reducing healthcare inequalities
- AI for cancer care equity
- PAHO’s vision and actions
- Final reflections
• **Healthcare inequalities** continue to be a significant and pressing issue influenced by socioeconomic, geographical, and cultural factors.

• The **barriers to healthcare access** are not just numerous but also context specific, varying significantly across different countries and regions, and disproportionately affecting diverse populations.

• This **web of challenges** underscores the need for a comprehensive and customized approach in equitable access to health, one that is robustly supported by the digital transformation of the health sector.

**AI** presents a unique opportunity to **facilitate and improve access to health services**, making it more equitable, accessible and personalized, especially for underserved communities.
AI for reducing healthcare inequalities

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AI as a Transformative Agent in Reducing Healthcare Inequalities

Areas of potential application

- Predictive Analytics for Demand Forecasting
- Supply Chain Optimization
- Identifying High-Risk Populations
- Vaccination Campaign Management
- Information Dissemination and Public Engagement
- Monitoring Adverse Events

- Enhancing Patient Engagement and Compliance
- Optimizing Emergency Response
- Precision Diagnostics
- Personalized Medicine
- Resource Allocation
- Telemedicine
- Education and Training
- Language Translation and Cultural Sensitivity
- Facilitating Clinical Trials and Research
- Vaccine distribution
AI can analyze health service utilization patterns to identify disparities in access to care. This information can inform policies and strategies to make healthcare more equitable.
AI algorithms can rapidly analyze complex medical data, leading to more accurate diagnoses and early intervention, especially in areas lacking specialist healthcare providers.
AI-powered tools can provide real-time translation services, making healthcare more accessible to non-native speakers and reducing cultural barriers. These tools can also be trained to recognize and adapt to cultural nuances in patient care.
Integrating AI technologies in cancer care to promote equitable treatment and outcomes across diverse populations.
AI for cancer care equity

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- Building a Diverse AI Research Community
- Identifying and Mitigating Biases in AI Models
- Enhancing Diagnostic and Treatment Processes
- Policy and Regulation Implications
- Genomic Characterization and Drug Discovery

AI is being employed to improve the efficiency and accuracy of diagnostic processes, such as in radiology and pathology. AI applications can automate complex, multi-step processes, enhancing the efficiency of treatment planning and quality assurance.
AI methods are increasingly used for the genomic characterization of tumors. This application allows for the identification of specific gene mutations from tumor pathology images. AI is leveraged for accelerating drug discovery, predicting new drugs targeting specific molecules important in cancer growth.
Government agencies and industry need to collaborate to create an AI ecosystem that prioritizes the **quality and safety of AI tools**. This involves educating healthcare practitioners about AI, building trust, and ensuring transparency in AI applications.
AI for cancer care equity

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1. **Building a Diverse AI Research Community**
2. **Identifying and Mitigating Biases in AI Models**
3. **Enhancing Diagnostic and Treatment Processes**
4. **Genomic Characterization and Drug Discovery**
5. **Policy and Regulation Implications**

**AI in cancer care**

Diversity in backgrounds and experiences is crucial for addressing a wide range of patient needs and ensuring the development of equitable AI solutions in healthcare.
Biases in AI algorithms can result in varying treatment recommendations, a problem often originating from unbalanced and poorly curated training data, potentially encoding systemic biases and leading to discrimination in patient care.
PAHO’s vision and actions

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PAHO’s guiding principles for the use of AI for Public Health interventions

- People-centered
- Ethically grounded
- Transparent
- Data protected
- Demonstrates scientific integrity
- Open and sharable
- Non-discriminatory
- Human-controlled technology
It is essential that emerging technologies are not shaped only by technology companies and those in wealthy countries. **If models aren’t trained on data from people in under-resourced places**, those populations might be poorly served by the algorithms.

Ensuring that AI models incorporate diverse datasets, **including those from less affluent regions, is not just an ethical imperative but a necessity** to provide equitable healthcare outcomes for all.

For AI to truly be a force for good in cancer treatment, we must **broaden the scope of data collection** to encompass the varied genetic and environmental factors present in all communities.

AI in oncology can help reduce healthcare disparities, but there are concerns about AI technologies exacerbating bias. Addressing these issues is essential for **equitable integration of AI in cancer research and clinical practice**.
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Thanks