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The role of Health tech platform in Emerging Health Transformative Technologies

What is Healthtech?

The Platform for Dialogue and Action on Health Technologies in Africa (Healthtech Platform) promotes and facilitates informed, objective, open and balanced discussions on development and use of emerging transformative tools and technologies to address health challenges in Africa.

What are transformative health technologies?

According to the World Health Organisation (WHO), health technologies refer to the application of organised knowledge and skills in the form of devices, medicines, vaccines, procedures and systems developed to solve a health problem and improve quality of lives. In turn, these technologies are crucial for the services offered in prevention, diagnosis and treatment of illness, disease and disability. It must, however, be emphasized that if emerging technologies do not get a chance to be well designed and developed with meaningful inputs from Africans, and piloted or deployed full-scale where proven safe and efficacious, then their potential for changing the disease trajectory on the continent will remain untapped.

Technologies for malaria elimination

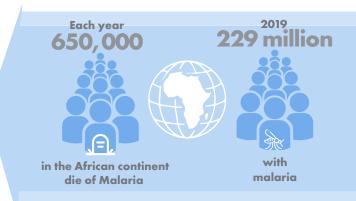
Malaria kills more than 650,000 people each year; the majority of those deaths occurring on the African continent. In 2019, 229 million people were infected. That's about 3% of all humans on Earth, every year. Worse off, 409,000 people died of malaria. Over

the past two decades, great progress has been made in the Malaria fight, saving more than 7 million lives and preventing over 1 billion malaria cases.

Some technologies being designed for the elimination of malaria include: gene drive mosquito technology; Ivermectin drug, malaria vaccine; sterile insect technology; piperronly butoxide (PBO) nets; Attractive Toxic Sugar Baits (ATSB); and drones for larvicide control. Some other health technologies and tools of interest to the continent which are being tested in Sub-Saharan Africa include: artificial intelligence; genome editing; drones; synthetic biology; data science/data analytics; monoclonal antibodies; and mechanical Others are: Digitisation, Telemedicine and Electronic health records (EHR); robots; and smart cities.

Gene-Drive Mosquito (GM) technology

For now, the gene drive technology for malaria elimination is the main focus of the Healthtech Platform. The National Academies of Sciences define gene drives as 'systems of biased inheritance in which the ability of a genetic element pass from a parent to its offspring through sexual reproduction is enhanced.'





How GM technology works

Gene drives refers to "a genetic modification designed to spread through a population at higher-than-normal rates of inheritance" In this case, gene drive mosquitoes are Malaria transmitting mosquitoes that are genetically modified to resist the parasite that causes Malaria.

Multistakeholder engagement

The Healthtech Platform is a space that brings all stakeholders together to openly and objectively discuss issues raised on emerging health technologies including: ethical concerns, opposition to the development of some of the health technologies (such as gene-drive mosquito technologies for Malaria control and elimination); limited African voices and engagement in the development and use of these technologies; limited knowledge among many Africans on these technologies; and the low priority and inadequate investments by African governments in the development and use of these technologies.

Regional bodies and policy instruments for transformative technologies

The African Union's development road map, Agenda 2063, recognises the critical role of technology as a catalyst for growth on the continent. AUDA-NEPAD is supporting regional efforts targeting regulatory reform on emerging health technologies. With the aim of promoting innovation and access to new health technologies, the AUDA-NEPAD and key stakeholders developed the AU Model Law on Medical Products Regulation. The objective of this non-prescriptive model legislation is to increase collaboration across countries and to ensure that medical products that hold promise are developed, tested, and scaled up for the improvement of

health impact. The AU Model Law was developed through the African Medicines Regulatory Harmonisation (AMRH) initiative platform and endorsed by the Pan African Parliament Committee on Health, Labour and Social Affairs. In November 2015, the AU technical committee on Justice and Legal Affairs approved the AU Model Law which is available for use as a starting point for the establishment of regulatory bodies and providing support for legislation in AU Member States. In January 2016, the AU Model Law was then endorsed at the AU Summit in Addis Ababa, Ethiopia by the AU Heads of State and Governments. Following endorsement, next steps taken were to engage with regional economic communities (RECs), regional organisations (ROs) and member states to update and enact regional legal frameworks and national laws on the regulation of medical products.

The AU Model Law also supports the AU's desire to promote local pharmaceutical production, with the goal of public health protection and economic growth, as well as supports continental efforts to advocate for, and catalyse access to novel medical products for patients in need.

The Healthtech Platform seeks to complement and strengthen ongoing policy efforts by facilitating meaningful engagement and involvement of Africans in driving conversations and action about the need for policy regulatory frameworks for transformational tools and technologies, their design, development, testing, and uptake by governments, development actors, and communities.

Through strategic partnerships, the Platform employs multi-pronged approaches and tools to engage a wide range of stakeholders including policymakers, scientists, academics, ethicists, media/journalists, and civil society actors on priority health technologies and the actions needed by African governments, development actors and Africans to facilitate the development and testing of these technologies, and deployment where the technologies are proven safe and effective. The Platform engages at global, regional, sub-regional, and national (in Burkina Faso and Uganda) levels.



Reference

1. Heidi Ledford & Ewen Callaway 'Gene drive' mosquitoes engineered to fight malaria, 23 November 2015

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