The African Clinical Research Network (ACRN) Model for Enhancing Clinical Research and Clinical Trial Access and Excellence

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Abstract

Understanding pharmacogenetics in African populations is crucial, as drugs such as antiretrovirals, cancer therapeutics, and cardiovascular medications are metabolized differently, potentially affecting their efficacy compared to non-Africans. Despite Africa representing 15% of the global population and 23% of the global disease burden, it accounts for only 2% of clinical trials. Expanding clinical research in Africa is vital to ensure appropriate drug dosing, formulations, and schedules, and to build trust in the medications used and the quality and integrity of studies conducted on the continent. A robust research ecosystem integrating world-class clinical trial capacity with healthcare systems will enhance our understanding of disease burdens and improve clinical care in Africa.

The African Clinical Research Network (ACRN) proposes an inclusive model connecting sponsors to researchers and research entities, providing operational support while ensuring data integrity and offering diverse research opportunities. The network will engage in various trials, including registrational, global multi-country studies, investigator-initiated trials, implementation science, and real-world evidence studies. This pan-therapeutic approach aims to involve clinical specialists from various disciplines in clinical research. ACRN will drive operational efficiency and clinical trial excellence, providing both academic and non-academic researchers with the opportunity to engage in clinical research across their specialties.

ACRN, as an African-led organization, will maintain high-quality research units to enable and manage clinical research and development. The network will collaborate closely with stakeholders, including pharmaceutical companies, governments, academic and private institutions, to shape priorities and facilitate studies. ACRN's hubs will be based across the five African regions (in ML3 countries or soon-to-be ML3 countries) and will partner with affiliated research units, academic centers, public and private institutions, physicians from multiple specialties, and Key Opinion Leaders (KOLs). This approach ensures geographic representation, diverse populations, and access to the best disease experts, supporting local research and addressing the data gap for healthcare and health outcomes in African populations.

We propose to share our model and obtain feedback from East, Central, and Southern African physicians across all clinical specialties. This will enable us to design a research network that meets the needs of Africa's key stakeholders—governments and regulators aiming to build and strengthen biomedical capacity, physicians and clinicians striving to improve patient care and outcomes, and communities whose engagement is essential for ensuring equity and access during and after research.