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From evidence to transformation: emerging priorities for health research and innovation in Africa

The articles featured in this second issue of 2026 of the *Sahelian Journal of Responsible One Health (SJROH)* collectively portray a continent undergoing profound epidemiological, demographic, educational, and technological transitions. While addressing diverse topics – from occupational mental health and vaccine hesitancy to oncological epidemiology, HIV-associated metabolic disorders, artificial intelligence, and medical education – the contributions converge on a central message: improving health outcomes in Africa requires integrated, multidisciplinary, and context-sensitive approaches that bridge research, innovation, policy, and practice.

The health systems of many African countries face a dual burden. Longstanding challenges related to infectious diseases, maternal and child health, and access to healthcare coexist with an increasing prevalence of chronic diseases, cancer, mental health disorders, and complex environmental risks. The studies presented in this issue offer valuable insights into these evolving realities and provide evidence that can inform both local and regional health strategies.

The “*Association between environmental exposure in hospital settings and anxiety and depressive symptoms among healthcare workers in Cameroon: an analytical cross-sectional study*” highlights an often-overlooked dimension of health system performance: the well-being of healthcare professionals themselves. As healthcare systems continue to recover from the long-lasting impacts of recent global health emergencies, understanding how occupational environments influence mental health becomes essential not only for worker welfare but also for patient safety, workforce retention, and healthcare quality.

Innovation occupies a prominent place in this issue. The contribution, “*Integrated software and modeling of the impact of plant-derived dietary microRNAs on the immune and nutritional status of children: an integrative in silico study*”, exemplifies the growing convergence of computational biology, nutrition science, and systems medicine. Such exploratory approaches may contribute to the development of novel nutritional interventions tailored to the needs of vulnerable populations, particularly in regions where malnutrition and infectious diseases continue to interact in complex ways. The increasing availability of bioinformatics tools and artificial intelligence methodologies creates unprecedented opportunities for African researchers to participate actively in frontier scientific discoveries.

Cancer epidemiology also emerges as a critical theme. The article “*Beyond Burkitt: an emerging maxillofacial tumor pattern in equatorial Africa and a shared ecological context*”, extending beyond the traditional focus on Burkitt lymphoma, reminds us that disease landscapes are neither static nor uniform. The identification of shared ecological contexts potentially influencing tumor distribution underscores the importance of integrating environmental, infectious, and socio-demographic determinants into cancer surveillance and research frameworks. Such evidence is particularly relevant as African countries experience rapid urbanization,

environmental change, and demographic growth.

Vaccination remains one of the most effective public health interventions, yet important gaps persist. Two articles in this issue address complementary aspects of immunization challenges. The case-control study “*Factors associated with zero-dose status in the Expanded Program on Immunization in the Central Region of Togo in 2024*” provides critical evidence regarding populations that remain excluded from routine immunization services. Reaching these children is now recognized as a priority within global immunization agendas, as zero-dose status frequently reflects broader inequities in healthcare access and social inclusion.

Similarly, the qualitative exploration in “*I do not have enough information to decide’: understanding parental hesitancy toward human papillomavirus vaccination of adolescents in Cameroon*” reveals that information gaps, uncertainty, and trust remain decisive determinants of vaccine acceptance. The finding reflected in the statement, “I do not have enough information to decide”, resonates far beyond HPV vaccination. It highlights the necessity of effective health communication strategies, community engagement, and evidence-based public dialogue to ensure that scientific advances translate into public health impact.

The comparative study “*Antiretroviral therapy and lipid disorders among people living with HIV/AIDS in the West Region of Cameroon*” reflects the success and the evolving complexity of HIV care. As access to antiretroviral therapy continues to improve survival, attention must increasingly focus on long-term metabolic complications and cardiovascular risk. This transition illustrates a broader phenomenon across Africa, where chronic disease management is becoming an integral component of healthcare systems historically organized around acute infectious conditions.

Finally, the future of health systems depends not only on research outputs but also on how future professionals are trained. The article “*Bridging the gap: integrating One Health and Responsible Research and Innovation into medical education in Chad*” addresses a strategic priority for the coming decades. Emerging infectious diseases, climate change, biodiversity loss, food security, and technological transformation increasingly require health professionals capable of working across disciplinary boundaries. By linking One Health perspectives with responsible innovation frameworks, medical education can better prepare future leaders to address interconnected human, animal, and environmental health challenges.

Taken together, the contributions in this issue demonstrate the remarkable breadth and dynamism of contemporary African health research. They also reveal common threads: the importance of prevention, the need to address inequities, the value of interdisciplinary approaches, and the growing role of innovation in tackling complex health challenges.

Importantly, several studies originate from Cameroon, Chad, and Togo, highlighting the increasing scientific productivity emerging from Central and West Africa. Such locally generated

evidence is indispensable for developing effective, contextually relevant solutions. Strengthening research ecosystems, fostering regional collaborations, and promoting equitable international partnerships will remain crucial for sustaining this momentum.

As Africa moves toward achieving the Sustainable Development Goals and the aspirations of the African Union's Agenda 2063, evidence-informed decision-making must remain at the center of health policy and practice. The studies presented in this issue contribute meaningfully to that objective. They remind us that health challenges are interconnected and that sustainable

progress depends on our ability to integrate scientific knowledge, technological innovation, educational transformation, and community engagement.

We hope that the findings reported in this issue will stimulate further research, inform policy discussions, and inspire collaborative action toward more resilient, equitable, and innovative health systems across Africa and beyond.

The Editorial Board

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