

APHRC

NEWS

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**Charting New Frontiers in
African Research and Policy**

Editorial

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**Do not follow
 where the path
 may lead. Go
 instead where
 there is no path
 and leave a trail.**

— *Ralph Waldo
 Emerson*”

Executive Director's Remarks

At APHRC, we began 2026 with a bright outlook, plenty of optimism, and hope for a great year. This first newsletter of the year, themed “Charting New Frontiers in African Research and Policy,” explores the advancements, continued innovation, and the chartered and uncharted territories that APHRC teams have ventured into. The Center is exploring, adjusting, learning, and unlearning.

A key “frontier” for the Center is the progressive production of evidence and the translation of knowledge to ensure it shapes decision-making. It is a frontier that keeps evolving and expanding. The continent is moving from being “studied” to actively shaping its own knowledge systems, and so APHRC has had to adapt to this transition. This entails promoting African research leadership, emphasizing the importance of locally grounded evidence, and doing more agenda-setting. The need to bridge the research-policy divide through relevant research and increased policy uptake is continuously evolving both in terms of subject areas, geographic locations, and in the adoption of new tools and technologies. This divide also demands that APHRC enhances Pan-African collaboration and regional integration through cross-border research networks and policy harmonization.

This newsletter issue highlights our expanding scope in research, capacity strengthening, and policy action. The articles, authored by our own staff, as always, showcase our collective efforts and demonstrate our commitment to ensuring APHRC’s work is relevant, meets the needs of the communities we serve in an accessible and responsive manner, and upholds excellence.

Charting new frontiers is a collective effort that requires cross-disciplinary collaboration and strengthening strategic partnerships with government, regional organizations, the communities we work with, and all our stakeholders. All the best as you find your new frontiers!

Happy reading!

Catherine Kyobutungi

Designing What Lasts: End-to-End Systems Rooted in Lived Realities

By Sheena Kayira, Business
Development Manager

“When the program came, it helped us a lot. We learned exactly what to do to keep our children strong, how to recognize when they were not well-fed, how to help them recover when they fell ill, and where to seek help if symptoms persisted. We felt more confident because we understood things we did not know before.”

“We still use some of what we learned. But some parts became harder to sustain. The foods we were told to give are not always affordable. We have many children, and they often need attention at the same time. We leave early for manual labor, so we adjust and do what we can in ways that fit our situation.”

This conversation was not part of a formal evaluation. It followed a colleague’s reflection on what remains once a well-designed intervention concludes its period of active support. That reflection stayed with me long enough to take us back to the project site, to better understand how we might chart a new frontier for what it takes for these initiatives to truly last beyond projects.

I asked them what it would mean to do things differently.

“It would be good to hear from us on what we already do, how we live, and how we can build on that.”

“What you bring should be within what we can manage. If it requires money or things that are not always available, it becomes difficult. If it uses what is here, we can continue.”

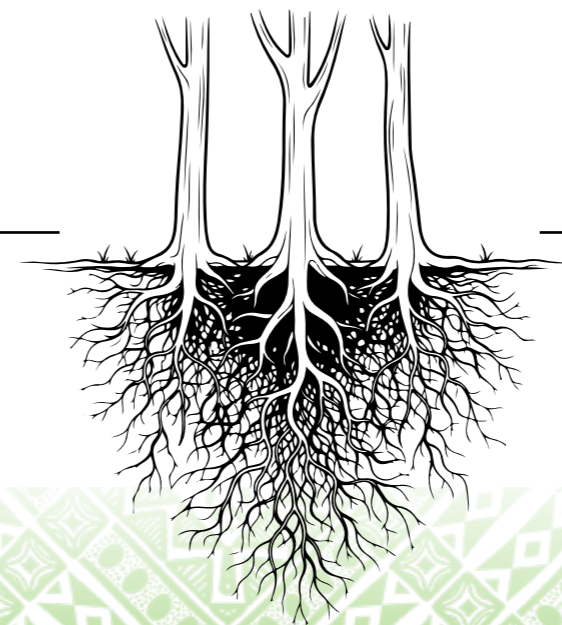
“Involve our community health volunteers, our health facility workers, and our leaders. If they are fully part of the thinking, it will be easier for us to continue conversations.”

These reflections shifted the focus in a way that is both simple and difficult to act on. Across global health and development, considerable effort has been devoted to strengthening the pathway from knowledge to action. Evidence is translated into guidelines, communities are trained, and systems are established. These advances reflect an important shift toward implementation and impact. Yet the question remains whether interventions fit well enough within the communities’ realities.

Research has consistently shown that sustainability is not only shaped by the strength of an intervention, but also by how it interacts with everyday lives. Community engagement is most effective when it builds on existing social and contextual structures rather than introducing parallel systems.

What this reinforces is that continuity is not an extension of implementation but a function of design. The community responses point toward a practical approach that builds on existing practices. This means recognizing that households already make decisions, albeit within constraints. These decisions are shaped by three interrelated realities: cost and access, local systems, and institutional anchoring. Interventions that align with these realities are more likely to be adopted and sustained.

First, cost and access. Evidence shows that when recommended practices diverge significantly from what households can afford or access, adherence declines over time, even when initial uptake is strong. A study by APHRC on community-based management of acute malnutrition showed that program effectiveness is closely tied to access and to households’ ability to maintain recommended practices without external support.



Second, local systems. Studies have shown that strengthening existing systems, rather than creating new ones, is one of the strongest predictors of sustainability. Community health volunteers, local health facilities, and informal support networks already form the backbone of care in many settings. When interventions are integrated into these systems, they are more likely to persist. When not integrated, they often depend on continued external inputs to function.

Third, institutional anchoring. Programs that are linked to government priorities, budgets, and accountability structures are more likely to continue beyond project cycles, as communities remain materially supported. Where this linkage is weak, continuity becomes uncertain. This aligns with broader evidence on health systems strengthening, which emphasizes the role of governance and financing in sustaining impact.

Taken together, these elements point toward an emerging frontier. An end-to-end approach that begins with lived realities, works through existing systems, and remains within the boundaries of what can be sustained locally.

From the community perspective, what does not fit within their lived realities will slowly disappear as daily intricacies take over. Charting new frontiers, then, is more about aligning programming more closely with the systems and realities it is meant to serve.

From Evidence to Impact: Placing Evidence at the Heart of Decision-Making in Africa

By Doris Omas, Communications and Advocacy Officer, and Jane Mangwana, Advocacy Manager

In Africa, policymakers are increasingly confronted with complex health and development challenges, even as demand for context-specific, actionable evidence grows. The available evidence is often fragmented, outdated, or presented in highly technical formats that are difficult for policymakers to use to inform policy decisions. Policymakers require clarity on what works in their context, for whom the interventions are most effective, and under what conditions change is likely to occur. As a result, evidence-informed decision-making has become a necessity for effective policy and program design.

In most cases, evidence does not automatically translate into policy or practice. Months or years are devoted to generating high-quality research, only for the findings to remain underutilized in the spaces where decisions are made. The assumption that strong evidence will speak for itself rarely holds true in real-world policy environments where decisions are influenced by political cycles, institutional interests, and social pressures. The gap between producing knowledge and seeing it reflected in national agendas is precisely where evidence-based advocacy becomes essential.

At the core of APHRC's strategy is the generation of scientific knowledge that aligns with both local and international development agendas that affect health and development in Africa. In addition, using the evidence generated to engage policy actors and drive transformative change. APHRC recognizes that research should not end with publication; instead, evidence must move beyond technical reports and presentations into the spaces where priorities are defined, and commitments are made by stakeholders. This approach helps ensure that policies are informed not only by political considerations but also by credible research and the lived realities of communities across the continent. It also creates room for community perspectives to shape policy discussions in meaningful ways.

Through dialogue and engagement, evidence shifts from being viewed as isolated research findings to becoming shared knowledge that stakeholders understand, reference, and eventually own, an essential step in opening or leveraging policy

windows. Knowledge brokerage requires more than sharing data. It also requires strategic engagement, including negotiating priorities and presenting evidence in ways that respond to current policy questions and advocacy agendas.

Within the broader research-to-policy ecosystem, APHRC plays a central role in bridging the gap between evidence generation and policy action through a deliberate, institution-wide policy engagement approach. From the outset, the APHRC undertakes political economy analyses to understand who matters within the policy ecosystems and the political, economic, and social contexts shaping decision-making in focus countries. These analyses inform the design of evidence-based interventions and ensure that policy efforts are grounded in a realistic understanding of power, incentives, and feasibility.

In addition, APHRC's policy engagement approach includes identifying key entry points for policy advocacy, collaborating with key actors to define advocacy priorities, and co-designing implementation strategies. Strategies include moving conversations to policymakers, who are the duty bearers; hence, the need to share evidence in formats that are relatable to them, such as policy briefs, PowerPoint presentations, and, sometimes, videos that highlight the human-interest angle. In most cases, direct engagement with policymakers, such as in-person meetings, helps personalize knowledge

products and, most importantly, guides how best to package the evidence. Through consistent engagement with other partners in the research and development ecosystem, the Center has strengthened the relevance of its research to policy needs and ensured that its recommendations are grounded in what is feasible, context-appropriate, and impactful. Over time, this contributes to a broader shift from evidence being passively available to being actively used to inform policies, programs, and practice.

APHRC's strength lies not only in the quality of its research but also in its ability to ensure that evidence is generated, in consultation with key actors, packaged in the right format, and delivered to the right people through strategic policy engagement to inform policy and program design.



EVIDENCE



ADVOCACY

Breaking the Cycles of Violence: A Focus on Ethiopia's Refugee Camps

By Michelle Mbutia, Senior Communications Officer

For decades, millions of people across Africa have been displaced from their home countries through war and other forms of violence. The search for shelter and security for themselves and their families often propels them to seek refuge in neighboring countries, where they try to recreate a semblance of home in makeshift camps. The East and Horn of Africa are currently home to 22.3 million displaced people, approximately 1 million of whom live in refugee camps across Ethiopia as of March 2025.

Between December 2023 and April 2024, the Baobab Research Program Consortium (RPC) conducted the second-ever Humanitarian Violence Against Children Survey (HVACS) to generate new evidence to inform contextually appropriate programming and policies. Covering 20 of Ethiopia's 23 camps, the survey generated rare and urgently needed data on the experiences of children and young adults living in refugee settings. Its purpose was not only to measure violence but also to gather data to improve the health and well-being of refugee children by informing prevention, protection, and law enforcement efforts in these contexts.

The findings of the survey are deeply alarming: one in three young women and one in five young

men aged 18 to 24 have experienced some form of violence before age 18. Among adolescents aged 13 to 17, about one-third of girls and more than one-third of boys had experienced violence in the past year. While physical violence was the most common, sexual violence was also significant, especially for girls. These are not abstract numbers—they represent interrupted childhoods, damaged trust, and jeopardized futures.

In refugee settings, where displacement already compounds vulnerability, violence is a common occurrence. The familiarity that refugee children have with cruelty and abuse demands a coordinated response from government, humanitarian actors, law enforcement, and the communities themselves.

What makes the survey especially important is that it moves beyond prevalence to the social factors behind the violence. Across age groups, perpetrators are mostly people known to the survivors: parents, adult relatives, other adults in the community, intimate partners, and peers. This finding is sobering because it shows that the danger for many children does not come solely from strangers, but from those who are expected to provide safety, respect, and security. Silence is another key finding of the survey. Only

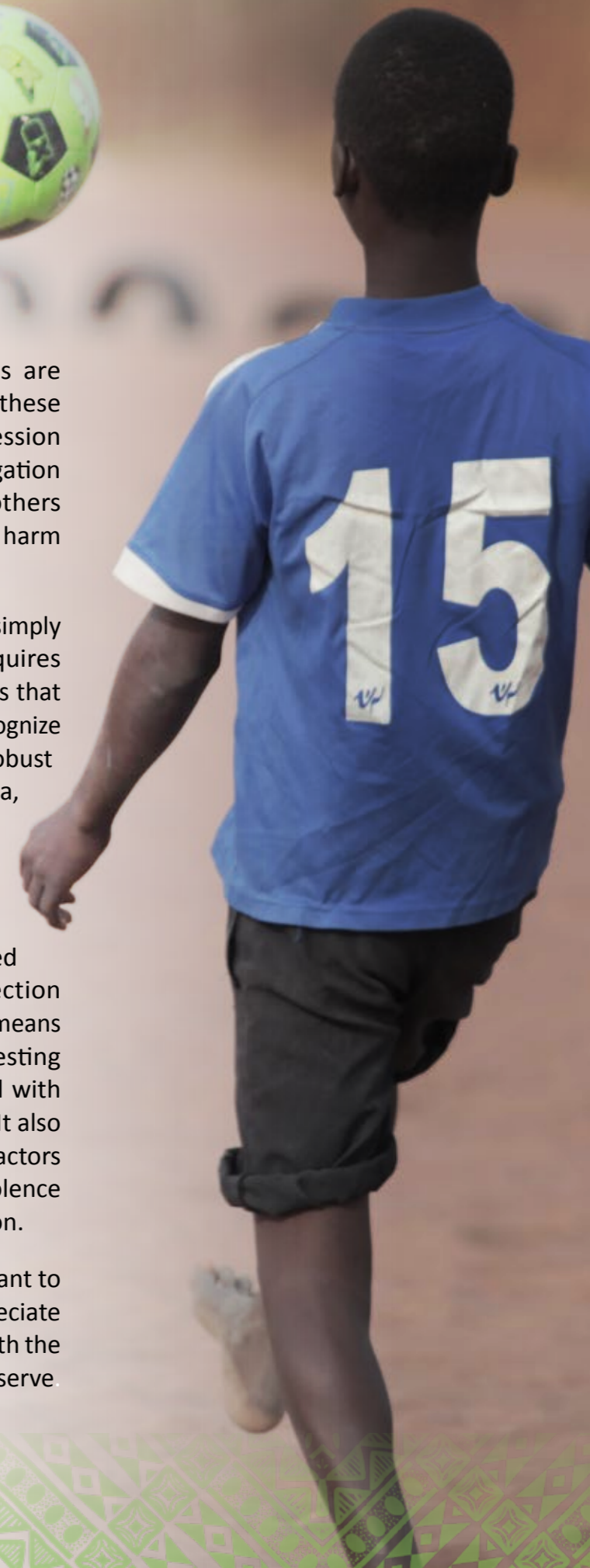


half of female survivors and fewer than one in ten male survivors disclosed childhood sexual violence, and even fewer disclosed physical violence. For many survivors, this means a lifetime burden of trauma often carried alone, as service-seeking was also a rarity, despite the clear health (mental and physical) consequences of violence, such as sexually transmitted infections and unwanted pregnancies.

While the immediate health and social impacts are concerning, the long-term cost of not addressing these issues is high. Mental health issues such as depression and suicidal ideation, school dropout, and propagation of harmful gender norms and violence towards others could potentially create the conditions for cycles of harm to continue across generations.

Conducting research in a humanitarian setting is not simply an extension of routine public health work. It requires methods that are sensitive to instability, populations that may be hard to reach, and ethical approaches that recognize the fragility of the setting, all while still generating robust evidence. Through the Baobab RPC work in Ethiopia, APHRC is helping to show that high-quality research can and must happen even in crisis contexts. By working with government agencies such as the Refugees and Returnees Services, the survey data can inform government efforts to develop targeted interventions spanning the prevention-to-protection continuum in refugee camps in Ethiopia. This change means moving beyond awareness-raising alone and investing in interventions that are grounded in data, aligned with survivor needs, and designed for long-term impact. It also involves understanding the macro-environmental factors that drive violence and a paradigm shift towards violence prevention as core humanitarian work, not an add-on.

The lesson from the Ethiopia HVACS is clear— if we want to protect children in crisis settings, we need to appreciate their lived realities and use that information to act with the urgency, coordination, and commitment that they deserve.



What We Miss When We Wait: Why Early Adolescence is a Blind Spot in Gender and Health Research in Kenya

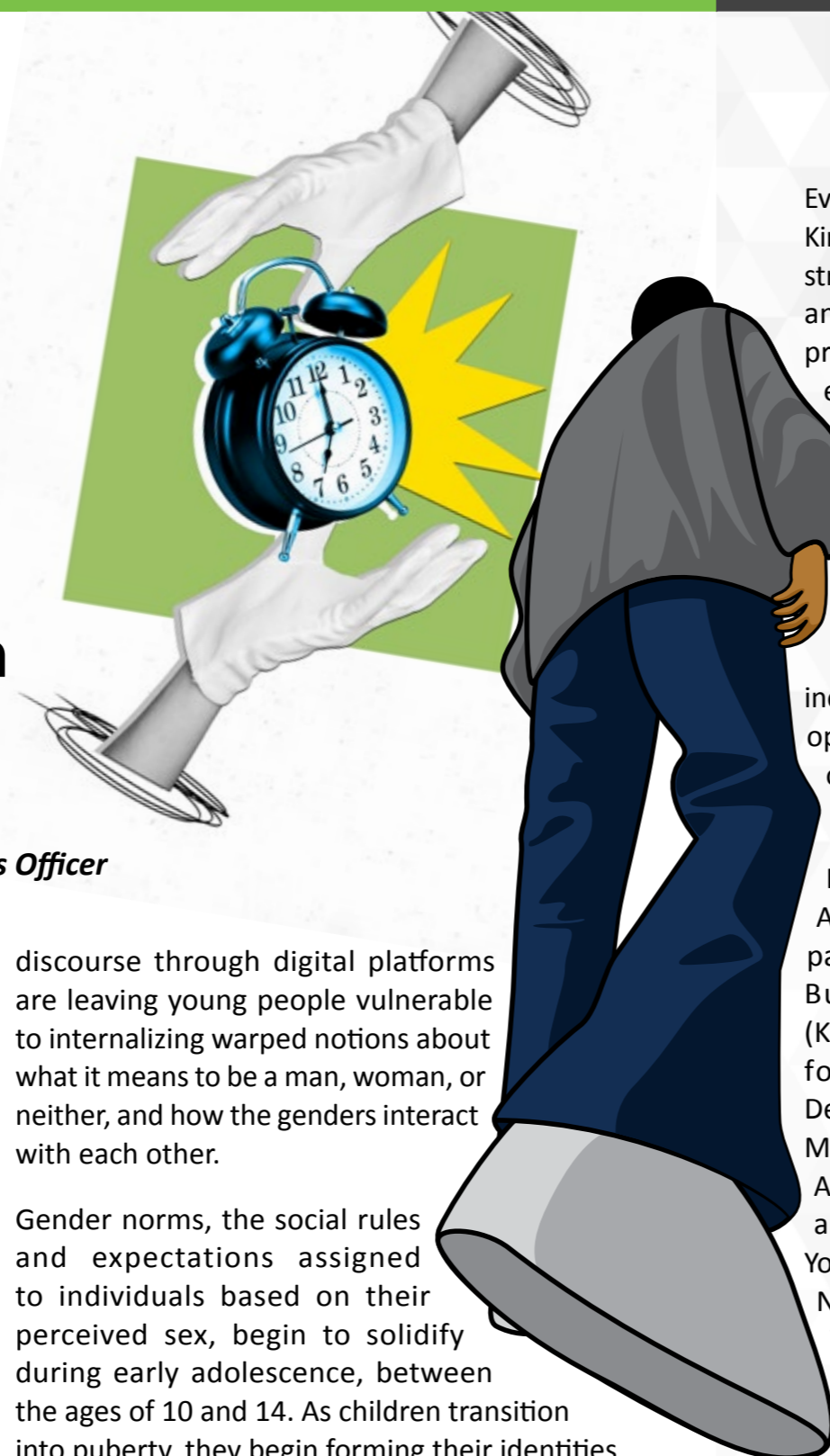
By Michelle Mbutia, Senior Communications Officer

In March 2025, streaming giant Netflix released a four-part British drama series. The show, titled *'Adolescence'*, follows a family of four in their everyday life until their suburban peace is disrupted by the arrest of their 13-year-old son, Jamie, who is charged with the murder of a female schoolmate, Katie. As the story unfolds, it emerges that Katie had been subjected to bullying and revenge porn by Jamie and his friends. Jamie, egged on by his friends and discussions on online platforms, tries to take advantage of Katie's emotional vulnerability. She rejects him, and in his anger, he stalks and stabs her to death.

During police interrogations and investigations, a different side of Jamie emerges, one that is shaped by deeply negative views about women, sexuality, and masculinity. It soon becomes clear that he and his friends have been drawn into online spaces rooted in misogyny and violence against women and girls. While the series is a work of fiction, it reflects a growing reality for many young boys worldwide. Economic pressures, a weakening social fabric, and the spread of toxic

discourse through digital platforms are leaving young people vulnerable to internalizing warped notions about what it means to be a man, woman, or neither, and how the genders interact with each other.

Gender norms, the social rules and expectations assigned to individuals based on their perceived sex, begin to solidify during early adolescence, between the ages of 10 and 14. As children transition into puberty, they begin forming their identities, making it a critical window for shaping attitudes, beliefs, and behaviors. Gender norms are learned and reinforced through influences such as family, peers, schools, media, and culture. Gender norms established in early adolescence can influence health and well-being across the life course. As *Adolescence* shows, harmful gender norms are often addressed too late, much after attitudes have become entrenched and manifest in the form of negative behavior.



Even though Jamie's story takes place in the United Kingdom, Kenyan adolescents are navigating similar struggles, balancing between their own emotional and physical changes, adult expectations, peer pressure, and digital influences. Without early, evidence-informed interventions, harmful ideologies about gender and power become deeply rooted during this formative period, shaping behavior related to masculinity and femininity in different spaces, well into adulthood. This is especially important in a country like Kenya, where adolescents make up 22% of the population, and where gender inequality still shapes health, schooling, and opportunities, yet empirical evidence on this formative stage remains limited.

It is for this reason that APHRC and its collaborating partners, Kenya National Bureau of Statistics (KNBS), National Council for Population and Development (NCPD) and Ministry of Health (MoH)-Adolescent Health Section are conducting the Kenya Young Adolescents Gender Norms Survey (KYAGNS).

This study aims to generate insights into how boys and girls think about power, respect, relationships, work, violence, and decision-making at this early stage of adolescence. By placing young adolescents at the heart of the study, we can generate evidence that enables earlier, more effective gender-transformative interventions. Such interventions have the potential to reshape harmful

gender norms before they manifest in later-life outcomes, including substance abuse, early sexual debut, and gender-based violence. In addition, engaging adolescents in validating the study's findings ensures that their perspectives are meaningfully incorporated into future studies' responses to emerging issues.

'Adolescence' also challenges viewers to interrogate what boys are learning about emotion, dominance, and respect, and how families, peers, institutions, and digital spaces play in that learning. Through the KYAGNS, this introspection is taking place empirically by generating evidence on how boys and girls understand gender, power, and relationships and how these shape gendered behavior at an early age. The study fills a critical evidence gap and provides a robust foundation for the future design of gender-transformative education, policy, and programming that are developmentally appropriate and contextually grounded in the lived realities of Kenyan adolescents.

Understanding how harmful gender norms take shape requires listening carefully to adolescents' own perspectives—an essential first step in anticipating risks before those norms become entrenched.



Africa's Aging Moment: Long-Term Care Can No Longer Wait

Gloria Langat, Head of Aging Unit, Sarah Ndonge, Senior Communications Officer, and Joash Moitui, Policy Engagement Manager

For years, one narrative has dominated conversations about Africa's population: it is the world's youngest continent. While this is true, it takes keen interest to get the whole view of why this matters. Quietly, and with profound implications, Africa is also becoming older. A growing number of people are living longer, and while that reflects progress in health and development, it is also exposing a major policy gap: the absence of strong, structured systems for long-term care.

Across the continent, older persons have traditionally been cared for by families and communities. That social fabric still matters deeply. But urbanization, migration, changing family structures, economic strain, and increasingly complex care needs are weakening those informal systems. Too many older people are now at risk of neglect, isolation, and poor access to health, social protection, and daily support.

The question is no longer whether Africa should rethink care. It is how quickly and seriously it can do so.

This is the gap between commitment and care,

and why the narratives that have held true about Africa's population need to be re-evaluated.

On paper, the policy foundations exist. Global frameworks such as the Madrid International Plan of Action on Aging and the World Health Organization's strategy on aging and health call for dignity, inclusion, and functional long-term care systems. Regionally, the African Union's Protocol on the Rights of Older Persons places obligations on governments to protect older people through healthcare and social protection. Several African countries have also taken steps in this direction. For example, Kenya has constitutional protections, draft legislation, standards for older persons' institutions, cash transfer programs, and emerging home-based care pilots. Uganda, Rwanda, and Tanzania each have some policy attention on aging, mainly through family and community-based care. Yet across the region, progress remains fragmented, underfunded, and heavily dependent on informal support. What makes this especially urgent is the evidence.

Africa's older population is rising rapidly. By 2050, the number of older persons is projected to grow dramatically, with Eastern and Central Africa seeing

some of the sharpest increases. APHRC's recent multi-country study adds an even more sobering layer to this picture: more than half of adults aged 50 and above surveyed experienced at least one functional limitation, whether in vision, hearing, mobility, cognition, self-care, or communication. Uganda, Rwanda, and Kenya recorded particularly high prevalence, with vision and mobility emerging as the most common challenges. These are not abstract statistics. They point to millions of people navigating aging with limited formal support, often in settings where poverty, rural disadvantage, gender inequality, and rising non-communicable diseases make care even harder to access.

Africa is therefore standing at an important frontier in research and policy on this matter. Long-term care can no longer be treated as a private family matter or a marginal social issue. It must be recognized as a public policy priority that cuts across health, social protection, labor, housing, and local governance. That means building integrated long-term care systems that connect national policy with community realities. It means investing in sustainable financing, including public budgets and insurance mechanisms, so care is not left entirely to already stretched households. It means strengthening research and data systems



so governments can plan with evidence rather than assumptions.

It also means transforming health systems to better respond to aging. Older persons need more than treatment for illness; they need systems that support daily functioning, independence, and dignity. Home and community-based care models, assistive technologies, and age-responsive service delivery will be essential. Social protection must also evolve, not only through cash transfers for older persons, but through deliberate support for caregivers who shoulder much of the burden without recognition, training, or compensation.

Beyond policy and financing, Africa will need to rethink the spaces in which aging happens. Cities, transport systems, housing, and public infrastructure should be designed with older persons in mind. Communities must also be strengthened to reduce isolation and ensure that aging does not become a silent descent into invisibility.

The real test of Africa's development will not be only how it empowers the young, but also how it protects those who have built today's societies. The continent's aging future is already here. Acting now to build inclusive, dignified, and well-financed long-term care systems is not simply a welfare issue. It is a question of justice, preparedness, and what kind of societies African countries want to become.

Transforming Africa's Food Environments for Better Health and Wellbeing

By Felistus Mwalia, Communications Officer, Chao Shete, Communications Officer, and Antonina Mutoro, Associate Research Scientist

If we grow more food, will Africans automatically eat better? Evidence suggests no, because food environments, not just production, shape what people can afford, access, and choose.

The 2023 State of Food Security and Nutrition World Report by the Food and Agriculture Organization (FAO), indicates that today, most households across both rural and urban areas obtain much of their food from markets, shops, and street vendors. As cities expand, lifestyles change, and processed and ready-to-eat foods become more widely available.

According to the FAO, a food environment is the setting in which people encounter and access food in their daily lives. This includes the variety of foods available in supermarkets, small retail outlets, wet markets, street food stalls, coffee shops, tea houses, school canteens, restaurants, and other venues where food is bought or consumed. These environments shape what consumers can access at a given moment, at a prescribed cost, and with some level of convenience, thereby influencing dietary choices.

Across Africa, the state of food environments is contributing to a growing burden of diet-related non-communicable diseases such as hypertension and cardiovascular diseases. In Kenya, non-communicable diseases already account for 42.8% of all deaths, reflecting the growing health impact of unhealthy diets high in sugar, salt, and unhealthy fats, according to a 2024 technical report, Consumer perceptions and effectiveness of front-of-package food labels in identifying high

levels of nutrients of concern in selected food products in Kenya, by APHRC.

Further evidence shows that a small percentage of Kenyans meet the recommended daily intake of fruits and vegetables, while more than 40% regularly consume unhealthy foods. Such changes have been linked to an increase in the prevalence of obesity and undernutrition.

In addition to the growing burden of diet-related diseases and persistent undernutrition, food safety is another key aspect of food environments that demands urgent attention. A 2023 scoping review highlights that across Africa, street food vendors provide affordable, accessible meals for millions of urban residents, especially low-income households, and play an important role in shaping urban diets and informal markets. However, food sold through these informal markets is often not subject to adequate health and safety oversight. Many vendors operate outside formal regulatory frameworks, remain unregistered, and receive limited public sector support. As a result, weak food safety infrastructure, limited cold storage, and inadequate hygiene conditions increase exposure to foodborne illnesses and compromise overall diet quality.

Together, these overlapping challenges illustrate why improving nutrition today is no longer about producing more food, but transforming the environments in which people make everyday food choices.

In this context, APHRC, through its Health and Wellbeing area of work, is generating evidence,

strengthening capacity, and influencing policy and practice to support healthier food environments across Africa. This work contributes to advancing the highest attainable standard of health as a fundamental human right for all Africans.

One important aspect in this work is strengthening food environment policies, which are the rules, standards, and incentives that shape what foods are available, affordable, and appealing to consumers. In Kenya, APHRC has contributed evidence to support the development of nutrition profiling approaches and front-of-pack labeling systems that help consumers easily identify healthy food. Nutrition profiling provides a scientific basis for classifying foods according to their nutritional composition, while front-of-pack labels translate that information into clear, simple signals at the point of purchase, helping consumers make more informed choices. These efforts form part of a broader package of policy interventions that include restrictions on marketing unhealthy foods to children, fiscal measures such as taxes on sugar-sweetened beverages, which, if implemented effectively, can reduce consumption of harmful products, encourage industry reformulation, and generate resources that can be reinvested in health promotion programs, and procurement standards that promote healthier diets in public institutions. Strengthening such policy pathways presents a significant opportunity for Kenya and other African countries to address the growing burden of diet-related diseases while supporting healthier and more equitable food systems.

Improving food environments also requires practical interventions at the community level. Through the European Union-funded #AfriFOODlinks project, APHRC has supported

market upgrade, improved food preservation infrastructure, and trained vendors in safer food-handling practices. For example, the Center co-designed and installed a cold room at Obunga Pap Mbuta Market in Kisumu, a market for low-income residents and a source of livelihood for over 200 mostly female fishmongers. The facility is fully operational, and vendors actively use it to safely store "mgongo-wazi" (dried bony fish) and enhance food safety.

To further strengthen food safety, APHRC, in collaboration with Nairobi City County and the University of Nairobi, developed a Food Safety Training Manual for Street Food Vendors under the EU-funded Healthy Food Africa project. The manual equips street food vendors with practical knowledge and skills to safely source, store, prepare, and serve food, drawing on international, regional, and national guidelines, including Codex Alimentarius, WHO's Five Keys to Safer Food, and Kenya's Public Health and Food Laws. Designed in modular form with illustrations and practical exercises, the training manual enables vendors to identify potential hazards, apply good hygiene practices, ensure legal compliance, and educate consumers. The manual has been adopted for use in Kisumu City and is potentially applicable to other African contexts.

Today, Africa stands at a crossroad. The continent can continue relying on the same approaches that constrain and make food unhealthy, or it can take bold steps to transform food environments. Strengthening

policies, investing in enforcement and monitoring systems, and scale up evidence-informed food environment interventions to local contexts will be critical for food environment transformation on the continent.



Beyond the Surface:

Why One Health Matters for Childhood Diarrhea

By Phylis Busienei, Research Officer, Innocent Tumwebaze, Associate Research Scientist, John Agira, Laboratory Technologist, Dennis Musyoka, Research Officer, and Sheillah Simiyu, Research Scientist

Imagine a young child, about 1 to 2 years old, happily playing. If that child fell ill with diarrhea, what is the first thing that comes to mind? They put something dirty in their mouth, right?

In Kenya, diarrhea consistently ranks among the top ten reported illnesses in health facilities. But why is it so persistent? The answer lies in the environment we live in, how we live, and our everyday behavior. Contaminated water and food are the primary culprits, but the drivers of diarrhea involve complex environmental contamination from multiple sources, including animals, unsanitary practices, and human behavior.

The One Health approach

Prevention of infectious diseases such as diarrhea is complex and requires an in-depth understanding of water, sanitation, and hygiene (WASH) as part of the puzzle. APHRC's researchers in the WASH space draw on multiple disciplines to understand the causes and identify potential solutions. The One Health approach is a collaborative thinking framework recognizing the interconnectedness of these different disciplines, including human health, the environment, and animals, to improve health outcomes.

What does the evidence show?

Our studies in urban and rural areas of Kenya have documented various environmental and behavioral factors that are likely to contribute to diarrheal diseases.

Water quality assessments in Kibera showed that 26% and 50% of drinking water from kiosks (water-selling points) tested positive for traces of fecal matter, suggesting potential exposure of residents and the likelihood of diarrheal disease in the settlement. In both Kisumu and Nairobi's informal settlements, further testing of environmental samples, including soil, surface water, hand rinses, infant feces, and toy rinses, confirmed the widespread presence of such pathogens (such as *E. coli*, *Shigella*, and *Giardia*).

Behavioral factors, including widespread ownership and poor management of domestic animals, act as key contributors to environmental contamination. In rural Homabay, our findings revealed that a majority of the households own domestic animals that often roam freely. There were approximately 26 hotspots of animal fecal matter around each household, with much of this left in the open. Laboratory tests revealed that much of these animal fecal samples contained pathogenic strains, all transmitted from animals to humans. These pathogens were also present in the environmental samples mentioned above, indicating that the dominance of free-roaming animals could lead to the spread of environmental contamination into food, water, or through human contact. Additionally, our observations showed that infants frequently interact with animals, their fecal matter, and other contaminated surfaces. While some households do not own animals, they are still exposed to animals from neighboring households that freely roam onto their premises

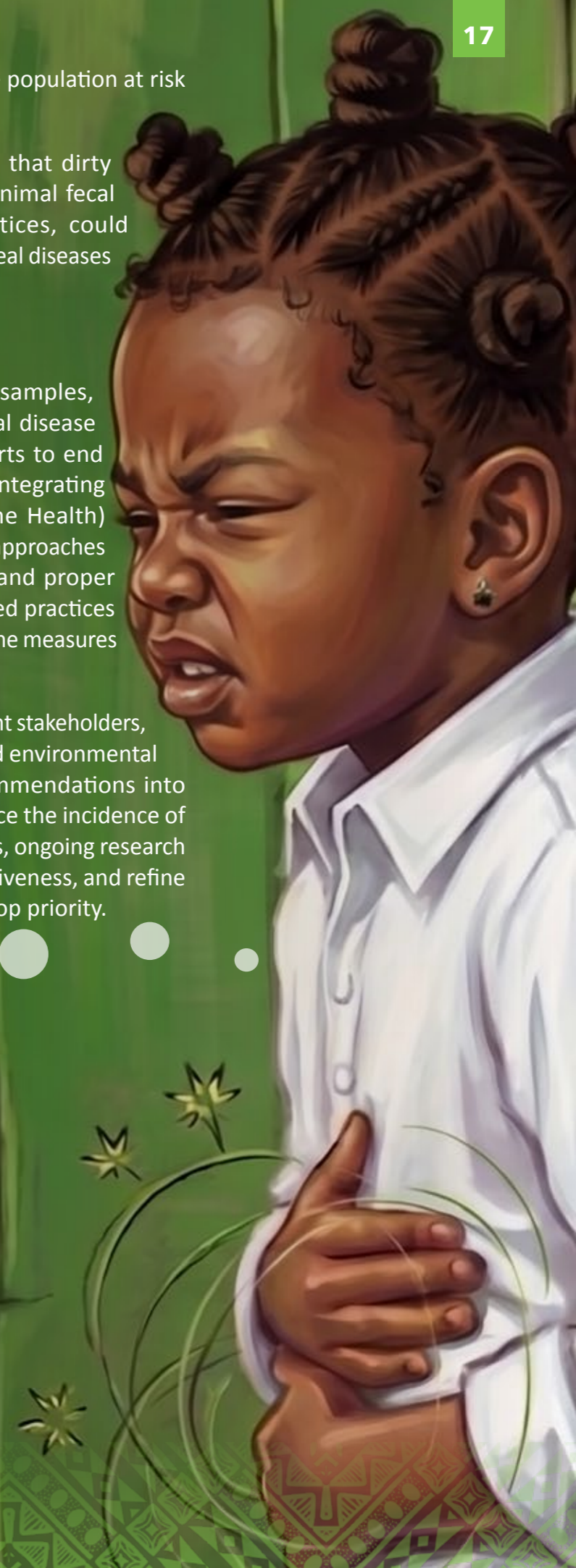
or into the community, thereby putting the entire population at risk of infection.

Evidence from these studies strongly suggests that dirty environments contaminated with human and animal fecal matter, and poor human behavior and practices, could substantially contribute to the occurrence of diarrheal diseases and influence their persistence in humans.

Way forward

The detection of pathogens in environmental samples, including animal fecal matter, highlights potential disease transmission routes that could undermine efforts to end childhood diarrhea if not properly addressed. Integrating animal, human, and environmental health (One Health) strategies is therefore a key priority, with effective approaches including promoting domestic animal penning and proper disposal of all forms of fecal matter, community-led practices that enhance proper waste management, and hygiene measures that prevent the spread of disease.

Our analysis highlights a pressing need for all relevant stakeholders, including those in animal management, public and environmental health, to deliberately incorporate these recommendations into current and future policies and guidelines to reduce the incidence of diarrheal diseases. Even as we call for these actions, ongoing research to generate evidence, evaluate intervention effectiveness, and refine strategies based on emerging data, remains our top priority.



In Favor of an Infectious Disease-free African Continent

John Agira, Laboratory Technologist, Phylis Busienei, Research Officer, Dennis Musyoka, Research Officer, Innocent Tumwebaze, Associate Research Scientist, and Sheillah Simiyu, Research Scientist

Centuries ago, communities worldwide faced devastating disease outbreaks whose causes were unknown. You may have read about the bubonic plague, also known as the "Black Death" pandemic, which killed more than a third of Europe in the fourteenth century. At that time, isolating people with suspected cases was the only containment strategy. The plague's recurring nature prompted investigations into the disease, and in 1894, Alexandre Yersin isolated the bacterium "Yersinia pestis", the causative agent of the plague, which is transmitted from rodents to humans through flea bites. This discovery later led to the development of an effective antiserum in 1896.

Like the "Black Death", morbidity and mortality from infectious diseases such as diarrhea and cholera are common in Africa, especially in low-income settings. The earliest efforts to identify the causative agents of these diseases relied on basic microscopy and culture methods, which laid the foundation for modern microbiology. Over time, microbiological techniques have improved with the introduction of selective reagents and enhanced laboratory procedures. Some of these techniques



remain the gold standard for assessing whether pathogens are alive, their external characteristics, and resistance to antibiotics.

Over the years, APHRC has used field tests and laboratory-based approaches in Water, Sanitation, and Hygiene (WASH) studies to broaden our understanding of waterborne infectious diseases and inform efforts to reduce morbidity and mortality from infectious diseases in Africa. Our studies in Kenya have focused on understanding the occurrence and spread of disease-causing pathogens across several settings and regions. For example;

What is the quality of drinking water in low-income settlements?

To answer this, our team collected drinking water samples from low-income settlements in Nairobi and assessed their quality against WHO-recommended standards by evaluating physico-chemical parameters and conducting microbiological tests to enumerate Escherichia coli (E. coli) and total coliforms, indicators of potential fecal contamination in drinking water. In collaboration with other partners, we applied metagenomic sequencing techniques to track points of microbial contamination along the water supply chain from distribution to collection. Our findings indicated that 15.3% and 55.6% of household drinking water samples tested positive for E. coli and total coliforms, respectively, suggesting that household and community practices in these areas contribute to drinking water contamination.

How do sanitation and hygiene contribute to the spread of disease?

Human and animal fecal matter can contaminate the environment if not safely contained. The study utilized bacteriological and molecular methods to detect pathogens in environmental samples,

including animal and human fecal matter. The team also applied parasitological methods to screen for parasitic worms and protozoa in animal feces. Regarding hygiene, our methodology combined microbiological and molecular methods to assess the hygiene levels of infant caregivers' hands and infants' toys, identifying the types and amounts of pathogens that could easily enter an infant's digestive tract. The team further combined these findings with survey and field data to identify potential transmission routes. Our findings from Nairobi and Kisumu showed that toy rinses and caregivers' hand rinses had E. coli levels above 75%.

Overall, our work has enabled us to investigate the factors behind the persistent occurrence of infectious diseases in Africa. Our findings highlight poor water quality, inadequate sanitation systems, poor waste-handling practices, and poor hygiene as contributors to the spread of disease-causing pathogens.

Where do we go from here?

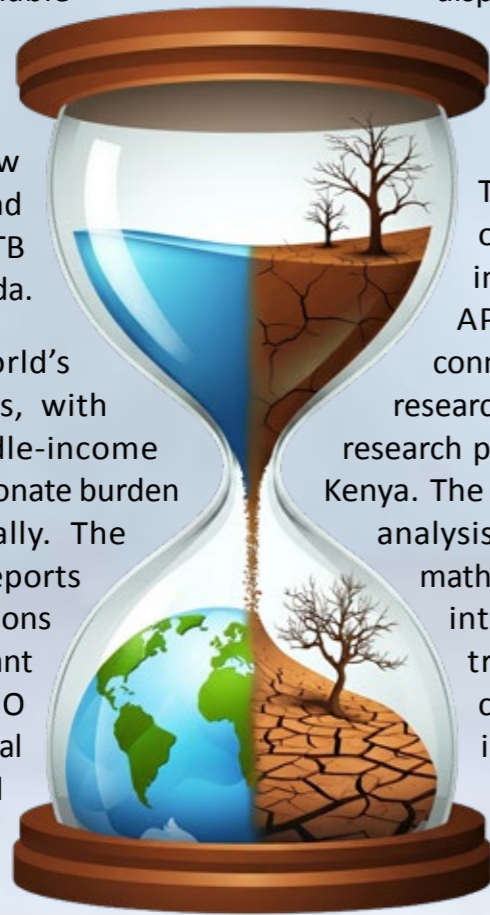
As we embrace the tranquil nature of our continent's environment, we should be aware of the potential health risks it poses. If our living conditions are not improved, exposure to pathogens through one or more of these pathways is inevitable, and we may take longer to reduce morbidity and mortality associated with infectious diseases. Thus, there is a need for a multidimensional approach that integrates real-world evidence with laboratory detection methods to reduce exposure to infectious disease-causing pathogens. We are not out of the woods yet, and as we all forge towards healthy living environments, we continue to strive to provide exceptional, practical evidence for a disease-free African continent. And who knows, we might soon join forces and produce our own "Alexandre Yersin"!

Integrating Climate Change into Tuberculosis Diagnosis, Treatment, and Care in East Africa

By Joshua Eliud, Field Supervisor, Helen H. Habib, Associate Research Scientist, and Richard Sanya, Associate Research Scientist

The East African region stands at the intersection of two significant health crises: accelerating climate change issues and a persistent tuberculosis (TB) burden. APHRC's Tuberculosis Study, conducted in partnership with the French National Institute for Sustainable Development, the Population and Development Research Center, and other partners, is the first to quantify how climate-driven displacement and food insecurity cascade into TB vulnerability in Kenya and Uganda.

TB remains one of the world's deadliest infectious diseases, with countries in low and middle-income countries bearing a disproportionate burden of cases and deaths annually. The World Health Organization reports that millions of new TB infections occur annually, with a significant proportion occurring in the WHO African Region. Despite substantial progress in TB detection and treatment, emerging global challenges are increasingly shaping the epidemiology of the disease. Among these challenges is climate change, which now threatens to reverse the gains through complex environmental and social pathways. Climate change poses a direct



threat to TB control and elimination efforts. Although direct links between climate change and TB outcomes remain limited in existing literature, growing evidence suggests that climate-related factors that drive food insecurity, population displacement, and weakened health systems can significantly influence TB transmission and patient outcomes.

To gain an in-depth understanding of how climate-related factors interact with TB control efforts, APHRC is investigating these connections through mixed-methods research developed in collaboration with research partners across diverse settings in Kenya. The approach combines time-series analysis of national health data with mathematical modeling and qualitative interviews. The project involves tracking TB trends alongside climate, nutrition, and migration indicators while capturing patient and caregiver experiences in Nyeri and Turkana counties. While the two counties have similar TB burdens, they differ in their climate sensitivities. This study ventures into new ground by examining how climate-related displacement, malnutrition, and food insecurity interact to complicate TB transmission, case

management, prevention, treatment adherence, and outcomes. Patient interviews document lived experiences of climate vulnerability and barriers to healthcare access.

Complementing these approaches, the study conducted a summative scoping review of available evidence documents on climate-mediated migration and TB. The scoping review aimed to gain additional insight into the intersection between climate, migration, and TB. Quantitative data for the analysis were drawn from the Kenya National TB and Leprosy Program (NTLP) and supplemented with open-source datasets on nutrition, food insecurity, and meteorological indicators. By analyzing TB epidemiological data, climate, and nutrition indicators, the study aims to generate

evidence on the dynamics among these main factors. It will inform climate-responsive TB interventions for Kenya and other high-burden countries. By quantifying these relationships and exploring the lived experiences of affected populations, as well as how climate stressors cascade through food systems, displacement patterns, and the healthcare infrastructure, the study will provide valuable evidence to inform preparedness and adaptation strategies for TB programs. Ultimately, these insights will support programs and policies in developing more resilient and climate-responsive TB control strategies. The study will help at-risk countries navigate the growing risks of climate change while advancing the goal of ending tuberculosis.



From Prevention to Response: New Frontiers in Addressing Sexual Violence Against Children Through Research in Africa

By Ann Waithaka, Senior Communications Officer, and Marta Vicente-Crespo, Program Manager



Across Africa, the architecture and efforts to address sexual violence against children (SVAC) have historically focused on response: supporting survivors, strengthening legal frameworks and prosecuting offenders, and improving reporting mechanisms. While these remain critical, a growing body of evidence highlights a persistent and costly gap: the lack of prevention. SVAC, which is a preventable health and social crisis, is widespread, carrying with it hidden challenges, with profound and lifelong consequences for survivors, including impacts on health, mental, and social well-being. Yet it remains chronically underreported, shaped by stigma, fear, and weak reporting systems. Prevention efforts, where they exist, are often fragmented and limited to standalone interventions that are rarely sustained or scaled.

Charting new frontiers and addressing this complex problem requires equally complex strategies. These include a shift in how SVAC is understood: not only as a legal or social issue, but also as a preventable public health and systems challenge

that demands coordinated, evidence-driven prevention at scale. This is where African-led research is gaining momentum in shaping more effective prevention efforts.

Through its dual focus on doctoral training and institutional capacity strengthening, the Consortium for Advanced Research Training in Africa (CARTA) is contributing to a more coordinated, evidence-driven approach to Prevention of SVAC (PSAVC). CARTA's eleventh cohort of 20 doctoral fellows includes a small but strategic group of three early-career researchers advancing research on PSAVC across multiple contexts, with support from the Oak Foundation.

In Kenya's Moi University, Molly Mercy Jerono is examining the cost and effectiveness of school-based sexual violence prevention programs. Her work addresses a critical gap in understanding not just what works, but what is feasible to implement and sustain at scale. At the University of Rwanda, Solange Nikwigize is investigating the underlying risk factors associated with sexual violence among

children in Rwanda, particularly those born to teenage mothers. Her work aims to provide a deeper understanding of vulnerability and pathways for early prevention. Complementing these, Razak Mussa of Malawi's Kamuzu University of Health Sciences is exploring community-based prevention strategies among street-connected children, a highly vulnerable and often overlooked population. His research highlights the importance of interventions that extend beyond formal institutions to reach children in complex and informal environments. These studies offer an integrated understanding of PSAVC, one that spans schools, communities, and national systems. They also underscore the value of African-led research in shaping contextually relevant responses that are more likely to be effective.

Beyond prevention, CARTA fellows are also advancing research that strengthens response systems. In Malawi, Patani Mhango is focused on improving child sexual abuse reporting in Blantyre by examining the barriers that prevent survivors from coming forward and working with stakeholders to co-design more responsive and accessible reporting mechanisms. His work contributes to strengthening reporting systems, particularly system entry points, as part of a broader, integrated approach to addressing SVAC.

By supporting researchers embedded within African universities, CARTA is helping generate locally grounded knowledge while strengthening the institutional environments that enable high-quality research. However, generating evidence is only part of the solution. Ensuring that research informs policy and practice is equally critical. CARTA places strong emphasis on research uptake, equipping fellows with the skills to communicate their findings, engage stakeholders, and contribute to policy processes. This strengthens the link between knowledge production and decision-making, increasing the likelihood that evidence translates into meaningful change.

CARTA's broader model further amplifies this impact. Many of its graduates advance into leadership roles within and beyond their institutions, contributing to stronger research cultures, improved postgraduate training and supervision, and more effective integration of evidence into policy and practice within their sectors. In this way, the program contributes not only to individual capacity but also to the long-term strengthening of institutional and national systems.

As Africa continues to confront complex social and public health challenges, the importance of investing in prevention cannot be overstated. In the case of sexual violence against children, this means moving beyond reactive approaches toward coordinated, evidence-driven systems that address risk, strengthen protection, and support resilience. By advancing African-led research and building the capacity of institutions and individuals, CARTA is helping to shape this future—one where prevention is not an afterthought, but a central pillar of child protection systems across the continent.



Strengthening Africa's Foundations for Pandemic Preparedness

By Ann Waithaka, Senior Communications Officer, and Rita Karoki, Project Officer

Africa's experience with COVID-19, Ebola, Marburg, Rift Valley Fever, and other infectious disease threats has reinforced a critical lesson: preparedness cannot be outsourced. It must be built, coordinated, and sustained from within. Across the continent, a new generation of African-led initiatives is emerging to strengthen how institutions collaborate, generate evidence, and respond to present and future health threats. At the forefront of this shift is the Prevention and Response to Emerging Viruses with Pandemic Potential in Africa Research Epsilon (PREPARE) Network, a multi-country initiative bringing together leading research institutions to advance pandemic preparedness and position Africa as a global leader in epidemic science.

PREPARE is one of several Epidemic and Pandemic Sciences Innovation and Leadership Networks (EPSILONs) supported under the Africa Pandemic Sciences Collaborative (the Collaborative). Through these networks, the Collaborative invests in African-led research partnerships that aim to strengthen scientific capacity, enhance collaboration, and support the development of locally driven solutions to emerging health threats. At its core, PREPARE seeks to strengthen One Health approaches to infectious disease surveillance and diagnosis across South Africa, Uganda, Kenya, the Democratic Republic of the Congo, and Côte d'Ivoire. By integrating human, animal, and environmental health systems, the

Network is designed to support earlier detection of epidemic- and pandemic-prone pathogens and improve understanding of how such threats emerge and spread. The initiative reflects a growing recognition that effective preparedness depends not only on scientific discovery but also on strong, coordinated research ecosystems that can respond quickly and collaboratively across borders.

Building a Network for Surveillance and Research

Over its implementation period (2025–2030), PREPARE will support the development of interconnected research and surveillance nodes across multiple regions of Africa. Participating institutions will draw on a combination of retrospective biological samples and expanded prospective surveillance across human, animal, and environmental systems. The Network is expected to strengthen the use of multi-pathogen diagnostics, genomic sequencing, and other advanced research tools to improve detection and characterization of both known and previously unidentified pathogens. Linking laboratory findings with clinical and epidemiological data will help deepen understanding of how pathogens evolve, transmit, and affect populations. This integrated approach is intended to help close critical gaps in early warning systems and strengthen the evidence base for public health decision-making.



From Detection to Preparedness and Capacity Strengthening for the Long Term

In addition to strengthening surveillance, PREPARE is designed to support research that contributes to future response strategies, including the development of prototype vaccine approaches using emerging technologies. By investing in research platforms and scientific collaboration ahead of major outbreaks, these efforts aim to position African institutions to contribute more actively to global pandemic response, while also addressing regional priorities. A key pillar of the Network is strengthening research capacity across participating institutions. Using established initiatives, which include the Consortium for Advanced Research Training in Africa (CARTA) and other academic partners, PREPARE will support the development of early-career researchers in areas such as genomics, surveillance, and advanced research methodologies. Such efforts help build a pipeline of scientists equipped to lead future epidemic preparedness and response across the continent.

The Role of Coordination and Enabling Systems

Beyond the science itself, PREPARE reflects a broader shift in how large-scale research collaborations are organized across Africa—with an increasing emphasis on partnerships, shared infrastructure, and coordinated implementation. The network brings together a consortium of African research institutions, with scientific leadership anchored at the Infectious Diseases and Oncology Research Institute (IDORI) at the University of the Witwatersrand. APHRC plays a central coordination role, supporting program implementation, fund management, and capacity strengthening across the network.

Partner institutions include the Center Hospitalier Universitaire de Bouaké (Côte d'Ivoire), the Institut National de Recherche Biomédicale (Democratic Republic of the Congo), the Kenya Medical Research Institute (Kenya), and the Uganda National Health Research Organization (Uganda). Together, these institutions form a geographically diverse and technically complementary network. While still in its early stages, PREPARE offers an important example of how African institutions are working together to build the systems, partnerships, and capabilities needed to strengthen preparedness for future pandemics. In doing so, it reflects a broader shift toward more coordinated, locally driven approaches to addressing global health challenges.

Pictorial



America's Bilateral Global Health Agreements: Poisoned Chalice or Paragon of Opportunity?

By Bernard Sabiti, Project Coordinator

In September 2025, the United States government released the America First Global Health Strategy (AFGHS), a new blueprint for how the world's hitherto largest funder of global health initiatives would provide healthcare aid worldwide. The policy and the strategy would make "America safer, stronger, and more prosperous," while also saving millions of lives globally and preventing infectious disease outbreaks from reaching American shores.

A key feature of how the strategy prioritizes American interests is in part by shifting from disbursing foreign aid through non-governmental organizations (NGOs) to focus on direct, transactional partnerships with recipient countries. In this way, it promises to "move countries toward resilient and durable local health systems" by incentivizing greater domestic investment in healthcare systems.

This shift in the U.S. global health policy has upended long-standing multilateral approaches to global health funding architecture and significant recalibration of global health diplomacy that the

world had been accustomed to in the pre-Trump era. Yet over 20 African nations have signed these agreements, which reportedly focus on pandemic prevention, investment in health systems, and strengthening surveillance data infrastructure. The word "reportedly" is used because most of them have not been made fully public by either side, the African countries, or the U.S.

However, there are hints of tension within these agreements. In Kenya, a High Court halted implementation of the agreement over data protection concerns. Zimbabwe rejected the U.S. deal, reportedly worth \$367 million, citing uneven terms and compulsory sharing of sensitive pathogen and biological data, which it viewed as a threat to national interest. In Zambia, talks were halted after the U.S. conditioned the health agreement on access to critical minerals such as copper and cobalt, alongside high-cost co-financing requirements. In Rwanda, despite signing a \$228 million agreement, the government reportedly pushed back on several U.S. demands during negotiations.

The global health architecture has been fraught with challenges. Decades of aid have created a dependency trap in which many African governments have relegated the care of their own people to Western donors while embezzling local revenue. Uganda, for instance, covers only about 10% of the cost of antiretroviral treatment for its HIV population.

The fact that a large percentage of aid remains with Western NGOs as administrative overheads is also an uncomfortable observation. Many Africa-based health leaders, through the decolonizing global health movement, have long spoken against entrenched systems and power dynamics, as well as the inherent national hierarchies within the global health system. These dynamics often result in local experts with lived, contextual experience being overlooked, while externally driven ideas are parachuted into African countries without question.

The "shock therapy" approach advanced by the AFGHS, however, is not an antidote to these problems.

By bypassing multilateral coordination mechanisms, the U.S. risks creating a patchwork of agreements with varying standards, priorities, and reporting requirements, which could complicate regional cooperation efforts led by entities such as the Africa Centres for Disease Control and Prevention, which depend on harmonized data and collective action. In the context of pandemics where pathogens do not respect borders, fragmentation can undermine effectiveness.

The AFGHS's focus on investments in data infrastructure, early warning systems, and digital health platforms could enhance pandemic preparedness and response capabilities in many African countries. Furthermore, the shift toward mobilizing private sector investment in health and linking health cooperation with economic interests may also catalyze innovation, infrastructure development, and job creation within African health systems.

The Power asymmetry inherent in these agreements is hard to miss. Low-income countries with very limited local health budgets cannot negotiate with global superpowers from a position of strength.

Data governance, in particular, is a contentious issue in these agreements. Strengthening surveillance systems often involves collecting and sharing sensitive health data. While this can enhance global preparedness, it also raises questions around data sovereignty, privacy, and control. Zambia, Zimbabwe, and the Kenyan civil society, through the courts and their response to these agreements, have demonstrated that African countries must ensure that data generated within their borders is not exploited or externalized without fair benefit-sharing arrangements.

While these America First bilateral global health agreements could potentially provide African countries with continued American aid, they are fraught with risk. African countries need to be assertive and vigilant to ensure that the agreements they sign have robust safeguards and are not a poisoned chalice. Strategic coordination, strong data governance, and a clear articulation of national interests are essential to ensure that these partnerships serve as instruments of empowerment rather than dependency.



Breaking New Ground in Cervical Cancer: Rethinking Vaccine Coverage Measurement in Senegal

By Ndèye Awa Fall, Research Officer

Cervical cancer kills silently and disproportionately. It is the fourth most common cancer among women worldwide, yet it is almost entirely preventable. The human papillomavirus (HPV) vaccine is one of the most effective tools available, but its impact depends entirely on how well it reaches the girls who need it most. In Senegal, a pioneering new study is challenging how that reach is measured, and in doing so, is charting new ground in vaccination science and health policy.

The situation in Senegal demands urgent attention. Cervical cancer is the leading gynecological cancer in the country. According to the World Health Organization (2021), nearly 2,000 women are diagnosed with the disease each year, and at least two-thirds of them die from it. These are not just statistics. They represent mothers, daughters, and community members lost to a disease that science has made preventable.

Senegal introduced the human papillomavirus vaccine into its national immunization program in October 2018, following successful pilot projects conducted between 2014 and 2016 in districts including Dakar-Ouest and Mékhé. Those pilots

demonstrated strong community demand and the feasibility of reaching nine-year-old girls through both school-based and facility-based approaches. The country has since adopted the World Health Organization's 2022 recommendation to transition to a single-dose schedule, a significant step forward in program efficiency.

Yet progress is incomplete without reliable data. Tracking vaccination coverage remains one of the most persistent challenges in immunization programs globally. In Senegal, doses are recorded on paper forms and reported monthly into the District Health Information Software as aggregate data, a system that, while functional, leaves room for inaccuracies and gaps.

Compounding this is a growing climate of vaccine hesitancy. Research conducted between 2021 and 2025 by the Regional Health Observatory revealed that mistrust of vaccination has deepened in the wake of the pandemic, fuelled by fears of side effects, doubts about safety, and the rapid spread of misinformation. Without accurate data on who is and who is not vaccinated, designing effective responses to these challenges becomes enormously difficult.



This is the gap that APHRC is working to close. With support from the Gates Foundation and Gavi, the Vaccine Alliance, the study titled “Improving Strategies for Measuring Human Papillomavirus Vaccination Coverage and Equity in Senegal” is part of the broader HPV-Impact project, also implemented in Rwanda and Liberia.

The nationwide household survey covers all 14 regions of Senegal and integrates data from health facilities to build a comprehensive picture of vaccination coverage and equity. What makes this study particularly innovative is its exploration of school-based surveys as an alternative, and potentially more cost-effective, method for measuring coverage among girls aged 10 to 12.

The study will directly compare estimates of vaccination coverage from school-based surveys, household surveys, and administrative reports. Beyond raw coverage figures, it will examine equity indicators including age, place of residence, education level, socioeconomic status, disability, and

ethnicity, asking not just how many girls are vaccinated, but which girls, and whether the program is reaching the most vulnerable.

The implications extend well beyond Senegal. If school-based surveys prove to be a reliable and more affordable method for tracking vaccination coverage, they could offer a scalable model for other countries across the continent facing similar data challenges. At a time when health systems are under pressure and resources are constrained, smarter measurement tools are not a luxury but a necessity.

For Senegal, the stakes are clear. Achieving the World Health Organization's goal of eliminating cervical cancer requires reaching 90 percent of girls with the HPV vaccine before the age of 15. Getting there demands not only strong delivery systems, but also the evidence needed to know whether those systems are working, and for whom. This study is a step toward that evidence. In a region still building the infrastructure for robust health data, that step represents a genuine frontier.



Building a New Era of Evidence-Driven Health Policy in Africa: The Countdown to 2030 Story

By *Diana Munjuri and Assane Diouf, Senior Communications Officers*

Across Africa, the challenge is no longer a lack of data but the persistent gap between generating evidence and using it to solve real-world problems. As countries accelerate efforts to improve reproductive, maternal, newborn, child, and adolescent health and nutrition (RMNCAH+N) health, the demand for African-led research that meaningfully shapes policy has never been more timely.

At the forefront of this shift is APHRC's Countdown to 2030 for Women's, Children's, and Adolescents' Health, a global initiative that is strengthening how data is used for decision-making across more than 34 African countries. The Countdown to 2030 initiative is reimagining how research is produced, interpreted, and translated into action.

From Data to Decisions

Countdown's approach represents a shift from traditional research models. Rather than relying on externally driven analyses, it places countries at the center, enhancing the capacity of national researchers, ministries of health, and institutions of higher learning to lead their own analyses using routine health facility data.

With harmonized analytical methods, countries now track key RMNCAH+N indicators, identify inequities, and point out service gaps. This shift has produced more timely, context-specific insights. Evidence now informs decisions, moving beyond static reports.

A key innovation in this work is the use of R-based tools, including an interactive Shiny application for data analysis and visualization. These tools simplify complex processes, enabling users to assess data quality, generate visual outputs, and produce reports more efficiently. By automating tasks that were once manual, time-consuming, and expensive, Countdown to 2030 is making data more accessible while reinforcing country ownership.

Strengthening the Capacity of Young African Researchers

Countdown to 2030 is committed to advancing African-led research. Through the fellowship program, the initiative is nurturing early-career researchers with technical expertise and the ability to engage policymakers and influence national and global health priorities.

Fellows are integrated within collaborating country teams, where they conduct policy-relevant research, support data analysis, and contribute to national conversations on health system performance. This approach bridges the

long-standing gap between research and policy, ensuring that evidence does not sit on shelves but meaningfully informs decisions that save lives.

Across participating countries, this investment in local capacity is already delivering results. Governments are increasingly using routine data for planning, allocating resources, and monitoring progress toward national and global targets, including the Sustainable Development Goals.

Driving Accountability and Equity

By generating comparable, high-quality data across and within countries, the initiative provides a clearer picture of where progress is being made and where it is falling short.

Equity remains central to this effort. Analyses consistently highlight disparities in access to essential health services, particularly for women and newborns. By bringing these gaps into focus, Countdown to 2030 helps countries prioritize interventions that reach the most vulnerable populations.

This focus is especially important in a context of constrained resources. With competing demands, governments must make difficult choices. Reliable, actionable evidence helps ensure those decisions are strategic, equitable, and grounded in reality.

A New Frontier for Evidence

As Africa faces existing and emerging health challenges, from the dwindling donor funding to rising strain on health systems, the need for strong, actionable evidence grows.

Countdown to 2030 is defining a new frontier for evidence use in Africa, where data is not only collected but also utilized to transform lives by informing policy, strengthening health systems, and improving health outcomes.

The journey toward 2030 is not only about achieving the SDG targets, but also about transforming how decisions are made. In this changing landscape, Countdown to 2030 stands as a significant example of what is possible when Africa leads its own research agenda, and when evidence works for the people it is meant to serve.



Making the Invisible Visible: Artificial Intelligence and the Future of Healthcare in Africa

By Dieneba Aidara, Research Officer

Is Artificial Intelligence (AI) a major technological revolution or simply a gradual evolution of digital tools? Long confined to research laboratories and science fiction, AI has now become embedded in our daily lives, significantly transforming the way we work, learn, communicate, and make decisions. In many ways, its emergence is comparable to historical turning points such as the advent of the internet or electricity.

From a scientific perspective, artificial intelligence builds on advances in computer science, statistics, and data science. In this sense, it represents a gradual evolution. However, due to its scale, diffusion speed, and systemic transformative power, it goes far beyond that. AI is reshaping practices, redistributing roles, and redefining human capabilities across multiple sectors. It is precisely this ability to transform systems simultaneously that gives it a profoundly revolutionary dimension.

In health systems, AI is opening unprecedented opportunities. Healthcare systems can now use algorithms to analyze massive volumes of data, improving the accuracy and speed of medical diagnoses. These algorithms can also detect anomalies in medical images, predict disease progression, and support treatment personalization. During the pandemic, these technologies were used to model the virus's spread and accelerate vaccine research, illustrating their transformative potential.

Yet it is in resource-limited settings that the revolutionary nature of artificial intelligence becomes most compelling. In many regions of sub-Saharan Africa, health systems face structural challenges such as shortages of qualified personnel, limited access to specialists, inadequate infrastructure, and delayed diagnoses. In such contexts, AI not only improves existing systems; it also helps rethink access to care itself. Supporting frontline health workers, facilitating patient triage, and providing clinical decision support helps bring medical expertise closer to populations and reduces structural inequalities related to geography, human resources, and access to medical information.

This discussion becomes particularly concrete when focusing on Parkinson's disease, a chronic and progressive neurodegenerative disorder affecting more than 8.5 million people worldwide. Characterized by tremors, rigidity, and postural instability, as well as often underestimated non-motor symptoms, Parkinson's disease has a

significant age-related increase in prevalence.

In sub-Saharan Africa, available estimates remain low, at 0.1%-0.2% in urban areas, but these figures are likely biased due to significant underdiagnosis. In Senegal, the situation is particularly striking. Although 273 deaths were attributed to Parkinson's disease in 2020, systematic data on its prevalence are lacking, limiting the health system's ability to respond effectively.

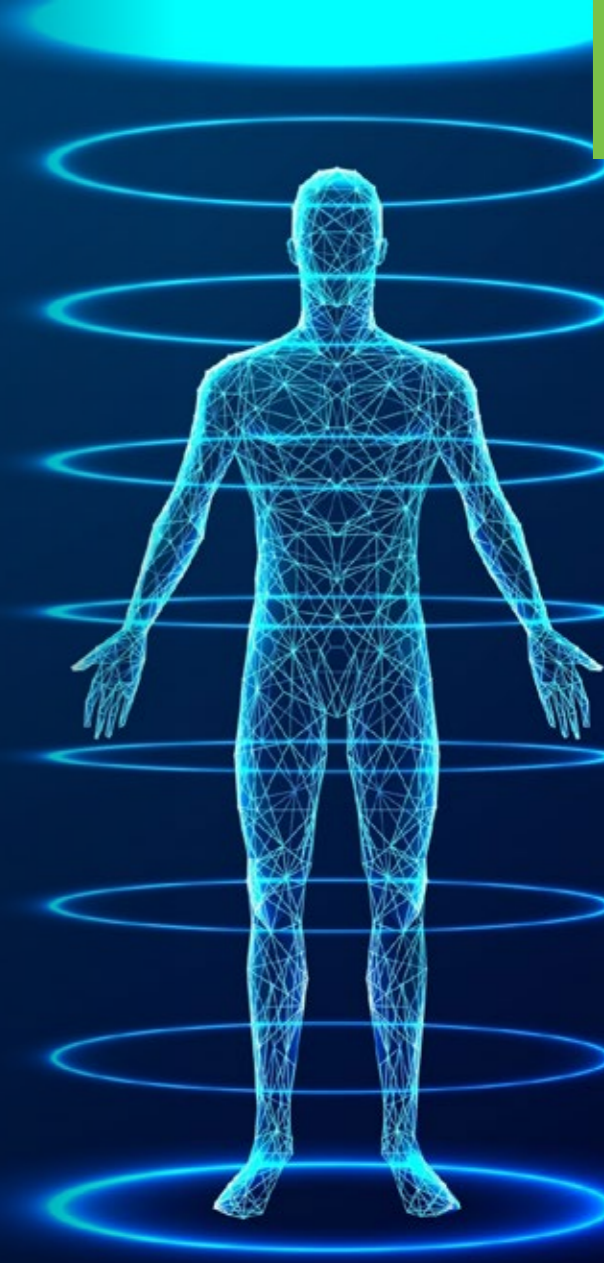
Recent data from a community-based study conducted in Bambilor, in the Dakar region, between September and November 2024, provide new and concerning insights. Among 1,049 individuals aged 60 and above, 11.2% exhibited symptoms consistent with suspected Parkinson's disease, a rate significantly higher than global estimates and previous hospital-based data. The study also highlights a substantial lack of awareness about the disease, not only within communities but also among certain health system actors. Parkinson's disease is likely underdiagnosed, underestimated, and largely invisible in public health policies.

Advances in machine learning have already demonstrated their ability to detect early signs of Parkinson's disease using voice analysis, handwriting, or gait patterns with high accuracy. However, most of these models are developed in high-income settings, limiting their applicability in low- and middle-income settings such as Senegal. The challenge is therefore no longer purely technological but also methodological and contextual, begging the question: how can artificial intelligence be made locally relevant?

This is precisely the ambition of APHRC's project, "Exploring Artificial Intelligence for the Early Detection of Parkinson's Disease in Senegal." Building on empirical data collected in Bambilor, the team aims to co-develop an AI-assisted early detection prototype specifically adapted to the Senegalese context. This co-creation approach involves researchers, healthcare professionals,

community health workers, startups, public decision-makers, patients, caregivers, and traditional healers, ensuring the solutions are relevant, acceptable, and locally owned.

The initial question, revolution or evolution, finds a nuanced yet clear answer. Artificial intelligence is an evolution in its design, but it becomes a revolution in its applications, particularly when mobilized to address the structural challenges faced by African health systems. In the case of Parkinson's disease in Senegal, AI offers a new frontier: making the invisible visible, anticipating rather than reacting, and fundamentally transforming access to diagnosis and care. More than just an innovation, it represents a strategic opportunity for the sustainable transformation of health systems across the continent.



Reclaiming What Was Never Lost: Endogenous Knowledge and the Future of African Development

By *Diama Diop Dia, Senior Communication Officer, and Abdoulaye Moussa Diallo, Postdoctoral Researcher*

In West and Central Africa, a traditional healer identifies medicinal plants to treat chronic illnesses that formal health systems struggle to reach. A coastal community uses environmental signs passed down through generations to anticipate seasonal floods. Farmers in the Sahel adjust planting times in response to shifts in wind patterns and the behavior of migratory birds. No textbook contains this information, yet it keeps millions of people alive. This is endogenous non-academic knowledge; it's alive, evolving, and largely hidden from formal development systems. As a result, APHRC's West Africa Regional Office (WARO) is working on a new exploratory research project titled "Use of endogenous knowledge in African mainstream knowledge systems" (UEKA). The project, supported by the International Development Research Centre (IDRC), will be conducted across two case study countries in West and Central Africa.

This research project partly stems from colonial-era dynamics, when resources were forcibly acquired and traditional knowledge systems devalued, deemed inferior, primitive, or simply unimportant. For generations, Africans were conditioned to look at their own intellectual history in a distorted way. Postcolonial studies and, later, the intellectual decolonization movement emerged with independence as

African scholars began to reassert the validity of their intellectual traditions.

The so-called 'epistemology of the South' has more recently challenged the criteria by which scientific knowledge is determined, asking whose standards are being used and for whose benefit. Yet, a glaring gap remains even with these progressive movements. The debate has largely focused on the academic production of African knowledge. The vast reservoir of oral, community-held, non-codified knowledge, transmitted through practice, observation, and intergenerational dialogue, remains unappreciated even among those who advocate for decolonization.

This oversight has real consequences. In health, endogenous knowledge systems have long offered communities accessible, culturally embedded care, from maternal health management to vector-borne disease treatment, where biomedical infrastructure is still limited. Across the Congo Basin and the Sahel, communities have built complex systems for interpreting ecological signals, managing natural resources, and maintaining ecosystem balance in their biodiversity and environmental management. These same communities are dealing with climate change and adapting based on generations of observed knowledge,

anticipating droughts, managing water scarcity, and preserving seed diversity, among other things, in ways that modern agricultural systems are only beginning to recognize.

The Intergovernmental Panel on Climate Change (IPCC) has recognized the essential role this endogenous knowledge can play in sustainable development. However, there is a grave threat in Central Africa as younger generations drift further from the elders who possess this knowledge. When that chain of transmission is broken, the knowledge is lost permanently. The governance landscape exacerbates the problem, as most African states have not ratified the Swakopmund Protocol, the regional framework developed by the African Regional Intellectual Property Organization (ARIPO) to preserve traditional knowledge and manifestations of folklore. While digitization holds the promise of preservation, it also risks the appropriation of sacred or community-restricted information unless it's built with appropriate intellectual property safeguards and genuine community agreement.

APHRC's UEKA research initiative expands into new areas by treating endogenous knowledge as a genuine and underexplored pillar of inclusive

growth, rather than a cultural curiosity or a footnote to formal science. The project will include a comprehensive literature analysis on endogenous non-academic knowledge in countries where the IDRC works. It will further identify key actors documenting how this information is distributed across the region today and examine where cooperation with academic institutions has succeeded or stagnated.

The results of this 18-month project will inform the design of a practical, co-designed, community-built framework to guide the governance, protection, and integration of endogenous knowledge into policy and programs. The subject matter is timely, and so is the approach. In a region where development models have all too often been imported rather than grown from within, this research amplifies Africa's knowledge heritage.

The next frontier in African development is not only about new technologies or new funding mechanisms but also deliberate engagement with policymakers, researchers, and advocates across West and Central Africa. It's about acknowledging, safeguarding, and incorporating the knowledge communities have always possessed, through proper structures, for a more equitable continent.





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