

KINTAMPO HEALTH RESEARCH CENTRE



MAY 2025

EDITION

TOP STORIES

PUBLICATION ALERT!!!

New Study Shows Portable, Low-Cost MRI Scanners Are Reliable for Brain Research in Low-Resource Communities

GASPAY

KHRC-Led GasPay Study Brings Cleaner Cooking to Over 3,950 Homes in Bono East Region Through a Mobile App

MI SAFETY SURVEILLANCE

Stakeholders Engaged Ahead of Maternal Immunization Safety Surveillance Pilot in Ghana

BONO EAST REGIONAL DIR. OF HEALTH

Dr. Marion Okoh-Owusu, the new Bono East Regional Director of Health Service, and her team visits KHRC

2025 KHRC STAFF AWARDS

KHRC Honours Outstanding Staff for Exceptional Performance

CLEAR WEBINAR SERIES

June Edition of CLEAR Climate & Health Research Webinar Series Scheduled for Tuesday, 24th June 2025

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KINTAMPO HEALTH RESEARCH CENTRE MONTHLY E-NEWSLETTER



NEW STUDY SHOWS PORTABLE, LOW-COST MRI SCANNERS ARE RELIABLE FOR BRAIN RESEARCH IN LOW-RESOURCE COMMUNITIES

A recent publication co-authored by researchers at the the Kintampo Health Research Centre (KHRC), reveals that portable ultra-low field (ULF) MRI scanners can reliably perform high-quality brain scans even in lowresource communitieswhere electricity or specialized hospital equipment is limited. The researchers used a quality control framework that confirms the scanners' reliability for global brain research.

The research paper, titled "Characterization of Portable Ultra- Low Field MRI Scanners for Multi- Center Structural Neuroimaging" and published in the Human Brain Mapping journal in May 2025, forms part of the UNITY Project (Ultra-low field Neuroimaging In The Young), which uses 64-millitesla ULF MRI scanners to investigate early childhood brain development in 17 research Centres in 12 low- and middleincome countries.

This research project, funded by the Bill & Melinda Gates Foundation, assessed images from the ULF MRI scanners used in each study site across multiple counties — including Ghana, Zambia, Pakistan, South Africa, Bangladesh, and Botswana. The ULF MRI scanners, developed by Hyperfine Inc., are designed to operate without the need for special rooms or infrastructure, and offers a mobile and affordable alternative to traditional MRI machines.

To test the performance of the scanners, the researchers collected and analyzed 244 phantom scans from each site. This marked the first global project to evaluate MRI image quality using a phantom — a specially designed object that mimics brain tissue. The researchers introduced a standardized quality control (QC) framework to assess image contrast, geometric accuracy, and temperature sensitivity. Each of the 17 study sites collected QC data regularly, based on what was practical in their local setting.

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 Tablet controller
Power supply- 900 watts(same power as a coffee maker.)
Gauss guard
Transfer bridge



5. Shield door and sensors(built-in continuou: 'noise cancellation' of electromagnetic interference. 6. Head coil 7. Casters and Joystick



KINTAMPO HEALTH RESEARCH CENTRE MONTHLY E-NEWSLETTER



KHRC-LED GASPAY STUDY BRINGS CLEANER COOKING TO OVER 3,950 HOMES IN BONO EAST REGION THROUGH A MOBILE APP

3,950 households in Techiman Over Municipality of Ghana's Bono East Region are now cooking with Liquified Petroleum Gas (LPG) and breathing healthier air, thanks to the innovative GasPay Study led by the Kintampo Research Centre (KHRC), Health in collaboration with Columbia University and the University of California, Santa Barbara.

In Techiman, many families still rely on firewood and charcoal for cooking, contributing to serious health issues, especially for women and children who spend long hours in the kitchen. In fact, household air pollution remains a major public health concern in Ghana today.

Recognizing this, the GasPay study, which is the first of its kind in Ghana, was launched in February 2024. It aims to make LPG affordable and accessible to low-income families through a mobile application called GasPay, that allows users to save small amounts of money through mobile money, order gas, schedule deliveries, and share feedback with suppliers. For families facing difficulties saving enough for gas, the study provides top-up incentives, used purposely for LPG refills. The app is available on the Google Play Store and USSD code.

The GasPay study builds on KHRC's earlier "Targeting Subsidy for LPG Adoption" study in 2023, which distributed over 1,350 gas cylinders and subsidized LPG refill costs to promote the use of LPG in households. The findings show that when given the opportunity, many families preferred cooking with gas, but the high upfront cost of LPG remained a major barrier—something the GasPay app is now helping to overcome.

The study began with a pilot phase where 50 households received gas at a 97% subsidy. Their feedback helped improve the app before it expanded to over 900 households by December 2024 and will later recruit more than 3,000 by July 2025. KHRC field staff continue to support participants through home visits, and to monitor how the app is helping to reduce the use of charcoal or firewood. <u>Click to Read More</u>





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STAKEHOLDERS ENGAGED AHEAD OF MATERNAL IMMUNIZATION SAFETY MONITORING PILOT IN GHANA

As part of preparations to pilot a Maternal Immunization Safety Surveillance Study, a twoday stakeholder engagement meeting was held in Accra to introduce the study and seek expert input to guide its successful implementation.

The Maternal Immunization Safety Surveillance Pilot Study is being carried out by the Kintampo Health Research Centre (KHRC), Dodowa Health Research Centre (DHRC) – both under the Research and Development Division of Ghana Health Service – and the Food and Drugs Authority (FDA), with funding from the Bill & Melinda Gates Foundation. It aims to create a system that closely monitors vaccine safety using a pregnancy registry that will detect and report any adverse events linked to vaccines administered during pregnancy. This system will be linked to the African Union Smart Safety Surveillance (AU3S) platform.

The stakeholder meeting, held on 29th and 30th April 2025, brought together participants from the health sector, academia, and media, including representatives from the Ghana Health Service at national, regional, and district levels; the World Health Organization (WHO); of Obstetricians Society and the Gynaecologists Ghana: National of the Immunization Technical Advisory Group (NITAG); the Ghana Academy of Arts and Sciences; the Paediatric Society of Ghana; the Ghana News Agency; and the Multimedia Group.

In her opening remarks, Dr. Delese Mimi Darko, Chief Executive Officer of the FDA, underscored the importance of building strong safety surveillance systems for maternal vaccines to foster public trust.

Prof. Kwaku Poku Asante, Director of KHRC, emphasized the importance of conducting this pilot before introducing new maternal vaccines. He noted that Maternal immunization is a proven way to prevent disease in both mothers and babies, but it must be backed by reliable data and active monitoring.

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KHRC RESEARCH FELLOW SHARES INSIGHTS ON ANTIBIOTIC USE IN SUB-SAHARAN AFRICA AT 2025 ESCMID GLOBAL CONFERENCE IN VIENNA



Dr. Samuel Afari-Asiedu, Research Fellow at the Kintampo Health Research Centre (KHRC) and Investigator for the AntiBiotic ACcess and USe (ABACUS) study, delivered a presentation on community antibiotic access and use in Sub-Saharan Africa at the 2025 ESCMID Global Conference. The conference, organized European Society of Clinical by the Infectious Microbiology and Diseases (ESCMID), was held from April 11-15, 2025, in Vienna, Austria.

Dr. Afari-Asiedu's presentation highlighted community-level antibiotic access and usage in Ghana, South Africa, patterns and Mozambique, drawing on multiple research studies conducted under the ABACUS project at KHRC. He highlighted key findings on the drivers of antibiotic consumption-including main sources of supply, weak regulatory frameworks, and widespread inappropriate use -and emphasized the contextual factors at the community level that contribute to the

growing threat of antimicrobial resistance (AMR) as well as interventions to improve how antibiotics are dispensed in communities.

His presentation formed part of a specialized session hosted by the ABACUS Consortium, focused on the quality and responsible use of antibiotics in low- and middle-income countries (LMICs). The session aligned with the conference's broader goal of fostering cross-disciplinary collaboration to address global AMR challenges.

Using а mixed-methods approach that combined household surveys, focus group discussions, and in-depth interviews, the KHRC-led ABACUS in Ghana studies, provided evidence into public perceptions of antibiotics, common self-medication practices, and the compliance of drug sellers with national pharmaceutical regulations. These findings provide important evidence for practical, community-informed designing interventions to improve antibiotic use without restricting access to those in need.

The ABACUS Consortium <u>(https://abacus-project.org/)</u> is a global research collaboration that brings together academic partners from Africa, Asia, and Europe.

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NEW BONO EAST REGIONAL DIRECTOR OF HEALTH SERVICE VISITS KHRC



The Kintampo Health Research Centre (KHRC), on Wednesday, 7th May, 2025, received Dr. Marion Okoh-Owusu, the Bono East Regional Director of Health Service, and her team from the Regional Health Directorate. This marked her first official visit to the Centre since taking office and provided an opportunity for her to engage with KHRC's management members, project leaders, and heads of departments.

In her remarks, Dr. Okoh-Owusu emphasized the importance of research in driving evidence-based healthcare and reaffirmed her full support for KHRC's innovative and impactful work in health research.



She further emphasized the shared mission between the regional health directorate and KHRC to ensure quality healthcare that is accessible to all, both geographically and financially.

Dr. Okoh-Owusu also assured the Centre of her full support and availability for collaboration, emphasizing that through joint efforts, innovative ways of solving health challenges can be discovered and implemented.

Prof. Kwaku Poku Asante, Director of Kintampo Health Research Centre (KHRC), warmly welcomed the team and reiterated the Centre's commitment to advancing the goals of the Ghana Health Service (GHS) and Ministry Of Health, Ghana (MOH) through meaningful public health research.



He explained that most of KHRC's work focuses on studying the key priorities set by the MOH and GHS, so the Centre can provide the evidence needed to guide important health decisions.

Prof. Asante also gave an overview of KHRC's research activities and led the team on a tour of the Centre's facilities to give them a closer look at the ongoing projects.



KINTAMPO HEALTH RESEARCH CENTRE MONTHLY E-NEWSLETTER

He expressed appreciation for the visit and assured the team of the Centre's continuous commitment to advancing public health in the region and beyond through its research.

The delegation included Dr. Kwabena Poku Okai (Regional Pharmacist), Mrs. Helen Agodzo (Deputy Director in charge of Clinical Care), Boatemaa (Regional Miss Veronica HR Manager), Mr. George Atampugre (Deputy Director of Administration), Dr. Bernard Ziem (Deputy Director of Public Health), Dr. Harry Oko Nartey (Deputy Director of Finance), Dr. Dr Anthony Twum (Medical Superintendent of the Kintampo Municipal Hospital), Dr. Alfred Kojo Ampofo (Kintampo North Municipal Director for Health) and Mr. Saeed Abubakar, an Administrator at the Municipal Health Directorate.









KINTAMPO HEALTH RESEARCH CENTRE MONTHLY E-NEWSLETTER



KHRC HONOURS OUTSTANDING STAFF FOR THEIR EXCEPTIONAL PERFORMANCE

The Kintampo Health Research Centre (KHRC) has recognized and awarded its dedicated staff for their extraordinary contributions and performance in the year 2024. The awards were presented during the Centre's first staff general meeting of the year.

In a warm and inspiring address, Prof. Kwaku Poku Asante, Director of KHRC, congratulated the awardees and presented them with plaques of recognition. He commended their dedication, professionalism, and commitment to KHRC's mandate of conducting impactful health research. He also encouraged all staff to continue to work hard to meet the mandates of Kintampo Health Research Centre (KHRC) and the overall goal of the Ghana Health Service.



This year's staff awards celebrated excellence across various roles and projects, including Best Research Fellow, Best Field Staff, Best Research Officer, Best Research Assistant, Best Security Staff, Best Finance Staff, Best Medical Laboratory Technician, Best Medical Laboratory Scientist, Best Medical Laboratory, Best Data Manager, Best Data Entry Clerk, Best Data Supervisor, Best Driver, Best Field Supervisor, Best Domestic Staff, Most Outstanding Study Coordinator, among others.

The awards initiative is part of KHRC's commitment to building a motivated, highperforming team dedicated to impactful public health research and service delivery in Ghana and beyond.





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PHOTO GALLERY

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Bono East Regional Director of Health Services, Dr. Marion Okoh-Owusu, addresing management and project heads of KHRC during her visit



Miss Veronica Boatemaa, Bono East Regional HR Manager



Directors from the Bono East Regional Health Directorate



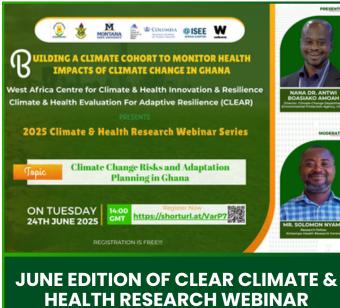
Director of KHRC, Prof. Kwaku Poku Asante, addressing the visiting delegation and the management and project heads of KHRC



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HEALTH RESEARCH WEBINAR SERIES CLIMATE CHANGE RISKS AND ADAPTATION PLANNING IN GHANA

The Climate and Health Evaluation for Adaptive Resilience (CLEAR) Programme is set to host the June edition of its Climate & Health Research Webinar Series on Tuesday, June 24, 2025. This session will feature a presentation on "Climate Change Risks and Adaptation Planning in Ghana."



PRESENTATION

Climate Change Risks and Adaptation Planning in Ghana – Nana Dr. Antwi Boasiako Amoah, Director of the Climate Change Department, Environmental Protection Agency, Ghana.

The webinar will be moderated by Mr. Solomon Nyame, Research Fellow at KHRC.

Click to Register

About the CLEAR Programme

Recordings of each session from the monthly CLEAR Climate and Health Research webinar series are available on our YouTube Channel: <u>http://www.youtube.com/@KHRCGhana</u>

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