

Seventh Annual Research Meeting of the Noguchi Memorial Institute for Medical Research: Health Systems Research

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SUMMARY

Health system research is crucial for identifying problems and evaluating solutions, ensuring the robustness, safety, effectiveness, and accessibility of health systems. It incorporates people-centred approaches, integrating individual and community perspectives into co-designed interventions. Community engagement in health services promotes equity and sustainability. Several papers focused on strengthening health systems and community engagement during the seventh Annual Research Meeting (ARM) of the Noguchi Memorial Institute for Medical Research (NMIMR) at the University of Ghana. Topics included improving child welfare clinic (CWC) attendance beyond immunisation periods, understanding neglected tropical diseases (NTDs), adolescent girls' knowledge of diet and hormonal imbalance, and public engagement activities regarding antimicrobial use (AMU) among rural livestock farmers.

Keywords: Health systems, child welfare and development, antimicrobial resistance, Ghana

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INTRODUCTION

Health system research is essential for the functionality and relevance of any health system, as it helps to identify problems and propose and evaluate solutions.¹ Programs, policies, or interventions need to be assessed both pre and post-implementation to ensure the robustness, safety, effectiveness, and accessibility of any health system.² People-centred approaches to health delivery allow the voices and perspectives of individuals and communities to be incorporated into interventions that are co-designed to achieve expected health outcomes.³ Community engagement in health service delivery or public health programs assures equity and sustainability.

Some health system strengthening and community engagement in health papers were presented during the seventh annual research meeting (ARM) of the Noguchi Me-

morial Institute for Medical Research (NMIMR), University of Ghana, in 2022. These focused on how to encourage and improve child welfare clinic (CWC) attendance beyond the period when the children receive immunisations, understanding and experience of neglected tropical diseases (NTDs) among affected persons, knowledge of adolescent girls on diet and hormonal imbalance, and how public engagement activities can elicit information on the factors that motivate rural livestock farmers antimicrobial use (AMU) and their level of awareness about antimicrobial resistance.

Mrs. Priscilla Siaw assessed the effects of a behaviour change communication intervention on the utilisation of preventive childcare services among selected health facilities in the Greater Accra region. This quasi-experimental study found an increased coverage of measles

vaccination, vitamin A supplementation and mothers' uptake of insecticide-treated nets. The risk of mothers missing CWC was markedly reduced. Some parents did not know they needed to take their children for growth monitoring and other preventive services when all immunisations have been received until the child was 5 years old. Others have identified this gap; thus, the mothers must be continuously educated from enrolment.⁵

Health workers should also sustain efforts to bring mothers and babies to the CWCs when immunisations are completed while addressing factors identified to be responsible for fallouts after immunisations are completed.⁶ Poor child survival is often attributed to weak health systems. In Ghana, child welfare clinics are a major intervention for improving child health up to age five through providing promotive, preventive, and curative health services. It is designed for children up to five years for growth monitoring, immunisation, administration of vitamin supplements, and health education, among others.⁴ However, it has been found that as children complete immunisations, which is currently around age one and a half, parents stop taking their children to the CWC.⁵ This negatively impacts the reduction of child mortality and morbidity.

Mr Daniel Okyere explored the community views on the aetiology of Leprosy, Buruli ulcer and yaws diseases in the Atwima Mponua District, Ashanti Region, Ghana. Skin NTDs, including Buruli ulcer, yaws and leprosy, although treatable, are associated with morbidity, disability, and stigma when diagnosed late.⁷ Negative assumptions about causality can lead to the social exclusion of individuals and their close relations.⁸ In his presentation, Mr Okyere found that in communities where these NTDs exist, there is appreciable knowledge of the conditions regarding signs and symptoms; causes of NTDs were identified as mainly linked to environmental, human, and spiritual factors, with divergent views on the causes and modes of transmission. These influence their care-seeking behaviours. There is, therefore, the need to intensify education and awareness on the causes and modes of transmission of skin NTDs in the country, especially in affected districts.

Dr. Sawudatu Zakariah-Akoto presented on diet and hormonal imbalance in adolescent girls through an awareness exploratory study. Hormones regulate many physiological processes, including the female reproductive function, and an imbalance has a major impact on the mental, physical, and emotional health of adolescents. Exploratory study.⁹ Poor diet, the environment and early menarche are partly responsible for hormonal imbalance.¹⁰ Dr. Zakariah-Akoto and colleagues sought to explore adolescent girls' knowledge and perceptions about

hormones and their link to diets and hormonal imbalance. Knowledge or awareness of hormonal imbalance was found to be high among adolescents, and their sources of information were mainly from the school and health professionals. They also showed knowledge of the relationship between diet and hormonal imbalance, citing fatty foods as offsetting the balance. With such a level of knowledge, behaviour change is required both in school and at home to improve adolescent lifestyle, especially diet.¹⁰

Finally, Dr. Eric Koka presented studies to raise awareness of antimicrobial resistance in a case study of top-down and bottom-up engagements with livestock farmers in Dormaa Districts, Ghana. The use of antibiotics for maintaining animal health has come under scrutiny in recent years due to the rise in antibiotic resistance globally, resulting in an increase in disease outbreaks and antimicrobial resistance (AMR) in bacterial pathogens.¹¹ Part of the strategy to address this has been top-down public education campaigns to instruct livestock farmers on antimicrobial use (AMU) and antimicrobial resistance (AMR). This is considered a one-health issue because it affects animals, humans, and the environment, and a cross-sector approach is required to tackle it. Dr Koka explored how public engagement activities can elicit information on the factors that motivate rural livestock farmers towards antimicrobial use (AMU) and assessed their level of awareness about antimicrobial resistance (AMR). Using co-creation workshops with the farmers, they explored the reasons for AMR-related activities by the farmers. They educated them on the public health implications of the misuse of antibiotics on farm animals. The need for an on-farm intervention to educate farmers on the appropriate use of antibiotics was identified. Also, using both top-down and bottom-up co-creation approaches to empower farmers enabled them to disseminate information on antimicrobial use and resistance through peer learning using existing networks and the media.

CONCLUSION

In conclusion, health system research is vital for identifying issues and developing effective solutions within any health system. The seventh ARM of the NMIMR emphasised the importance of assessing programs, policies, and interventions pre- and post-implementation to ensure they are robust, safe, effective, and accessible. People-centred approaches and community engagement are essential for achieving equitable and sustainable health outcomes. Overall, the NMIMR's research efforts contribute significantly to policy development, capacity building, and the implementation of effective health interventions.

Continuous health system research and community engagement are crucial for addressing current health challenges and improving public health outcomes in Ghana.

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