

Silas Adjei-Gyamfi (PhD) Faculty of Health & Environmental Sciences

---

Anaemia in pregnancy (AIP) remains a critical public health concern worldwide, affecting 51% of all pregnant women in Ghana, regardless of the self-reported adherence to the widely adopted regimen (GSS and ICF., 2024). The World Health Organization defines AIP as haemoglobin concentrations below 110 g/L, with iron deficiency recognised as the most prevalent underlying cause globally. This condition represents a crucial form of undernutrition, limiting the optimal intrauterine environment during pregnancy, which increases the risk of adverse pregnancy outcomes (WHO, 2017, 2018). Despite various global initiatives to reduce the prevalence of pregnancy-related anaemia, there is limited evidence regarding the feasibility of integrated nutritional interventions, comprising dietary and educational models, alongside the standard management of AIP (iron-folate supplementation and/or blood transfusions) in antenatal settings in Ghana. The main objective of my research is to assess the feasibility of a model nutrition intervention for reducing AIP.

Guided by social cognitive theory, this mixed-methods feasibility study will implement a culturally and clinically tailored nutrition intervention among 15 anaemic pregnant women attending antenatal clinic in Northern Ghana. The study will assess the acceptability and implementation dynamics of the intervention, while also tracking changes in haemoglobin, ferritin, and folate concentrations.

The anticipated outcome is to increase haemoglobin levels and enhance micronutrient status, which will result in reducing AIP. Furthermore, environmental, personal, and behavioural factors are expected to influence the intervention uptake and acceptability.

In this presentation, I introduce the designated model intervention comprising two-weeks daily consumption of egg and milk, mirroring the duration of standard iron-folate regimen. Additionally, monthly education on quality diet is incorporated which contrasts with the trimester-based nutrition education package. This intervention will inform the development of cultural and context-sensitive nutrition strategies and will contribute to future clinical and public health guidelines for managing AIP, extending relevance from Ghana to broader international contexts.

#### Keywords

Anaemia; Pregnancy; Gestational anaemia; Feasibility study; Nutrition intervention; Nutrition education; Dietary support

#### References

- Ghana Statistical Service (GSS) and ICF. (2024). *Ghana demographic and health survey 2022*. Accra - Ghana & Rockville-Maryland - USA: GSS and ICF. <https://www.statsghana.gov.gh/gssmain/fileUpload/pressrelease/Ghana%20DHS%202022%20FINAL.pdf>
- WHO. (2017). *Nutritional anaemias: Tools for effective prevention and control* (CC BY-NC-SA 3.0 IGO). Geneva: World Health Organization. <https://iris.who.int/handle/10665/259425>
- WHO. (2018). *The life-course approach: From theory to practice: Case stories from two small countries in Europe*. World Health Organization - Regional Office for Europe. <https://www.who.int/europe/publications/item/9789289053266>