**Improving the effectiveness of reproductive health in-service capacity strengthening programs: a comparison of blended and face-to-face training approaches.**

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**Background**

Globally, around 287,000 maternal fatalities occurred in 2020 (WHO) as a result of mostly preventable pregnancy and childbirth-related causes. Approximately 99% of maternal deaths occur in low-resource settings, and the majority can be avoided with timely treatments. Building the capacity of healthcare personnel through "in-service" training promotes the acquisition of knowledge, skills, and competence to provide integrated antenatal (ANC) and postnatal care (PNC) services, hence adding to maternity care quality. Blended learning and face-to-face approaches have been used for capacity training of health care providers in low-resource settings. This study aims to compare the effectiveness of two training approaches entirely face-to-face and blended learning to improve the quality of RMNH in Kenya, Tanzania mainland and Zanzibar.

**Methods**

A mixed-methods study design will be used. This will include quantitative, qualitative, and analysis of cost-effectiveness to answer key research questions. Study sites will include primary, secondary and tertiary facilities in Zanzibar, Tanzania mainland, and Kenya. The target population will comprise all ANC and PNC care providers, and health facility managers in the study areas. Data collection methods will be self-administered questionnaires, focus group discussions (FGD) and objectives-structured clinical examination (OSCE) will be used. Focus group discussions will be held to explore the participants' perceptions and satisfaction with the training modalities (blended and face-to-face) for developing the capacity of healthcare personnel. To have a complete grasp of the data, the researcher will read the entire interview. Verbatim and tone from responses will be transcribed and organized into meaningful units to create codes and sub-categories. Data will be coded and interpreted in the SPSS version 25 and then will be analysed to compute the mean and standard deviation.

**Expected outcome**

The effectiveness of blended learning and entirely face-to-face training will be determined. Findings from this study will guide key policymakers and decision-makers to use cost-effective training techniques for building capacity for healthcare providers.

**Next steps**

The detailed protocol will be developed after reviewing the findings of the systematic review. Ethics approval from the study countries countries will be obtained by Q4 2023 and data collection will commence in Q4 2023 and Q1 2024.

***Keywords****: Reproductive health, maternal and newborn health, antenatal care, post-natal care, effectiveness, training, face-to-face, and blended learning.*