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Assessing the Safe Surgery 2020 Implementation in Tanzania's Lake Zone: A Longitudinal Qualitative Research Study

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Disclosure

I, the presenter Noor Zaniel, do not have a personal financial relationship with any commercial interests. I have not accepted any honoraria, travel expenses, in-kind contributions, or any other support from commercial companies in connection with this activity.

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Introduction



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Studying Surgical Interventions

- Surgical quality in the global context:



Patients in Africa 2x as likely to die after surgery compared to global average¹



Maternal mortality rates after C-section 100x higher in Africa than HICs²

- Many developments in surgical evidence-based practices (EBPs) to improve surgical quality & access (e.g. pre-op antibiotics)
- Yet, translational gaps in implementation of surgical EBPs in LMICs

Safe Surgery 2020 (SS2020)



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GE Foundation

innovating to save lives



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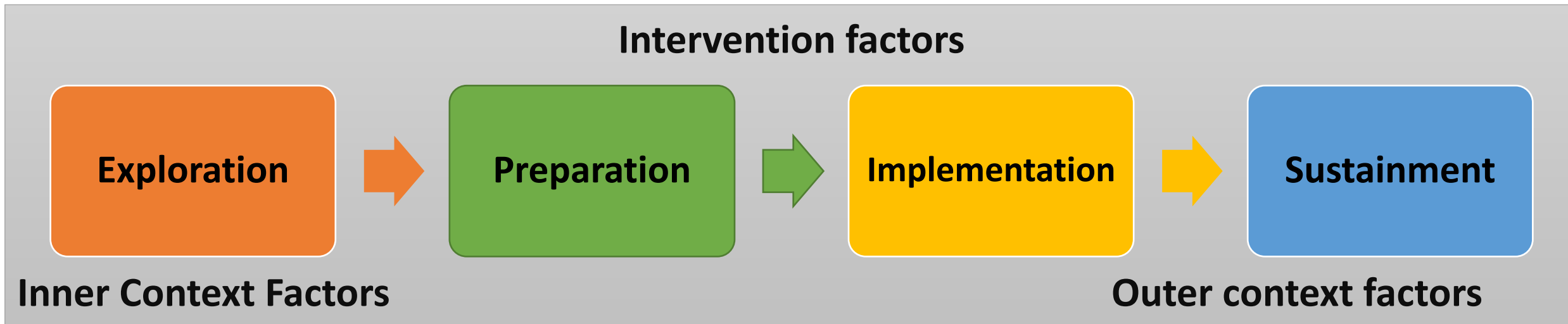


ASSISTSM
INTERNATIONAL



Dalberg

Implementation Framework + Research Aim



- **AIM:** Examining implementation of Safe Surgery 2020 in 10 intervention facilities in Tanzania's Lake Zone through EPIS framework.

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Research Methods



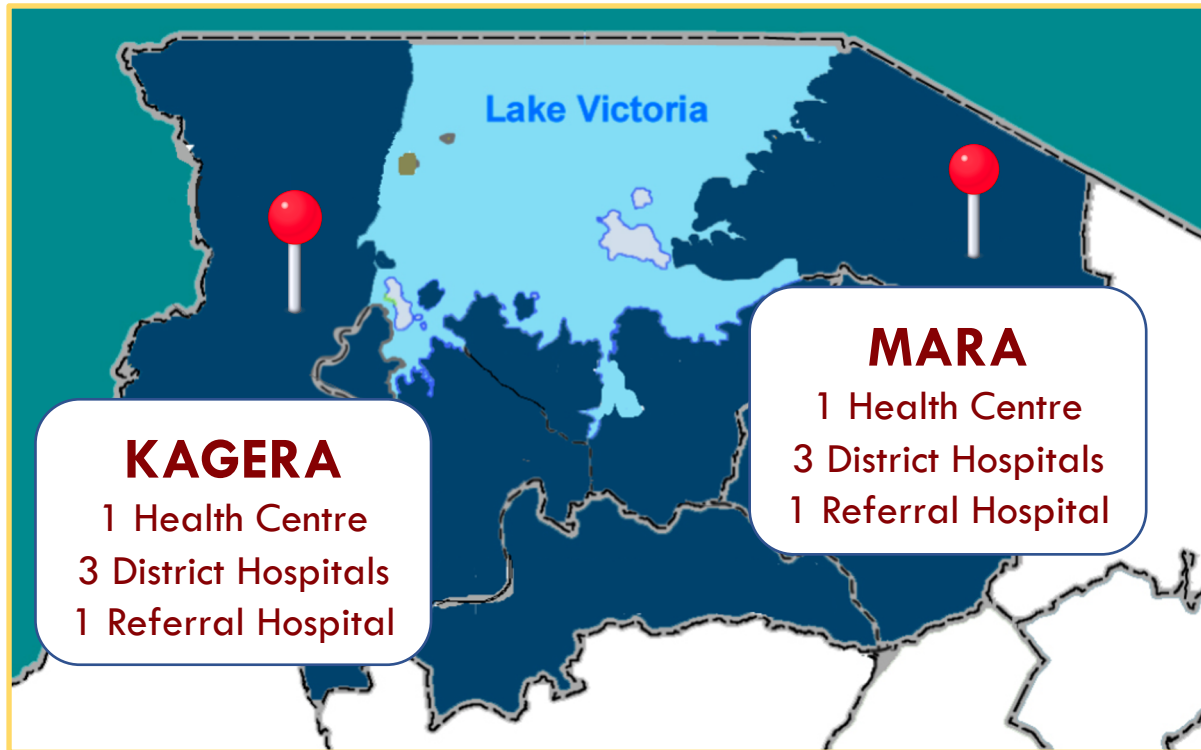
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Study Setting and Intervention



- Intervention: multicomponent with 3 phases
 - **Phase I** – Changing surgical culture (leadership training)
 - **Phase II** – Building surgical capacity (clinical, anesthesia, sterilization, and data quality training)
 - **Phase III** – Facilitating sustainability (in-person and virtual mentorship, infrastructure grant, mobile app – Touch Surgery)

Data Collection + Analysis

Data Collection

Exploration + Preparation:

Internal documents,
stakeholder interviews

Implementation:

longitudinal qualitative
evaluation

Data Analysis

Exploration + Preparation:

Content theme analysis

Implementation:

Grounded theory approach -
comparative thematic analysis

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Results



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Exploration and Preparation Themes

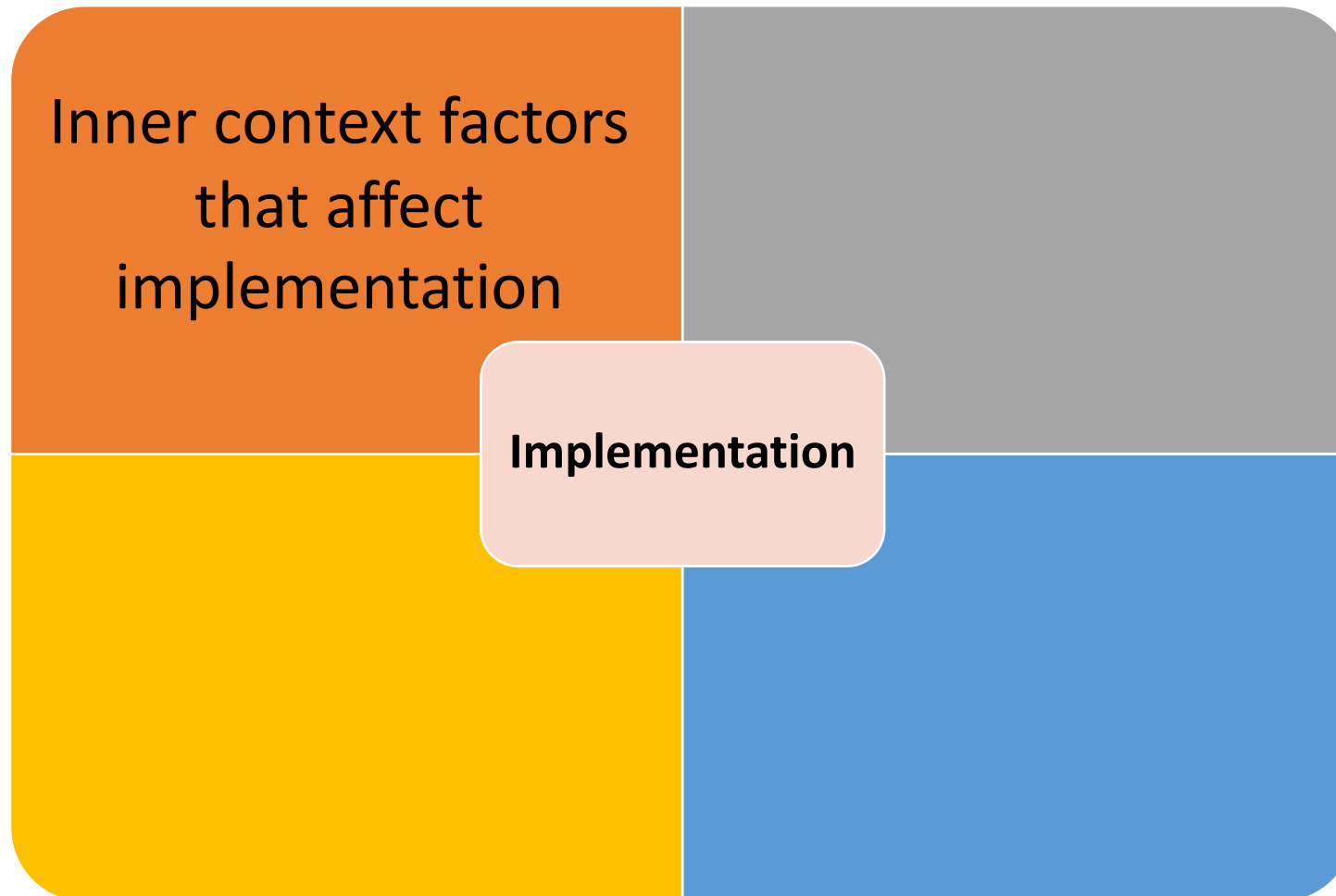
Exploration

- Thorough exploration of surgical need by multi-collaborative partnership
- Initial implementation in first host country (Ethiopia): trial for Tanzanian implementation
- Collaboration with Tanzanian government

Preparation

- Creation of National Surgical, Obstetric, and Anesthesia Plan (NSOAP)
- Feasibility assessments in Tanzanian facilities
- Revision of implementation plans

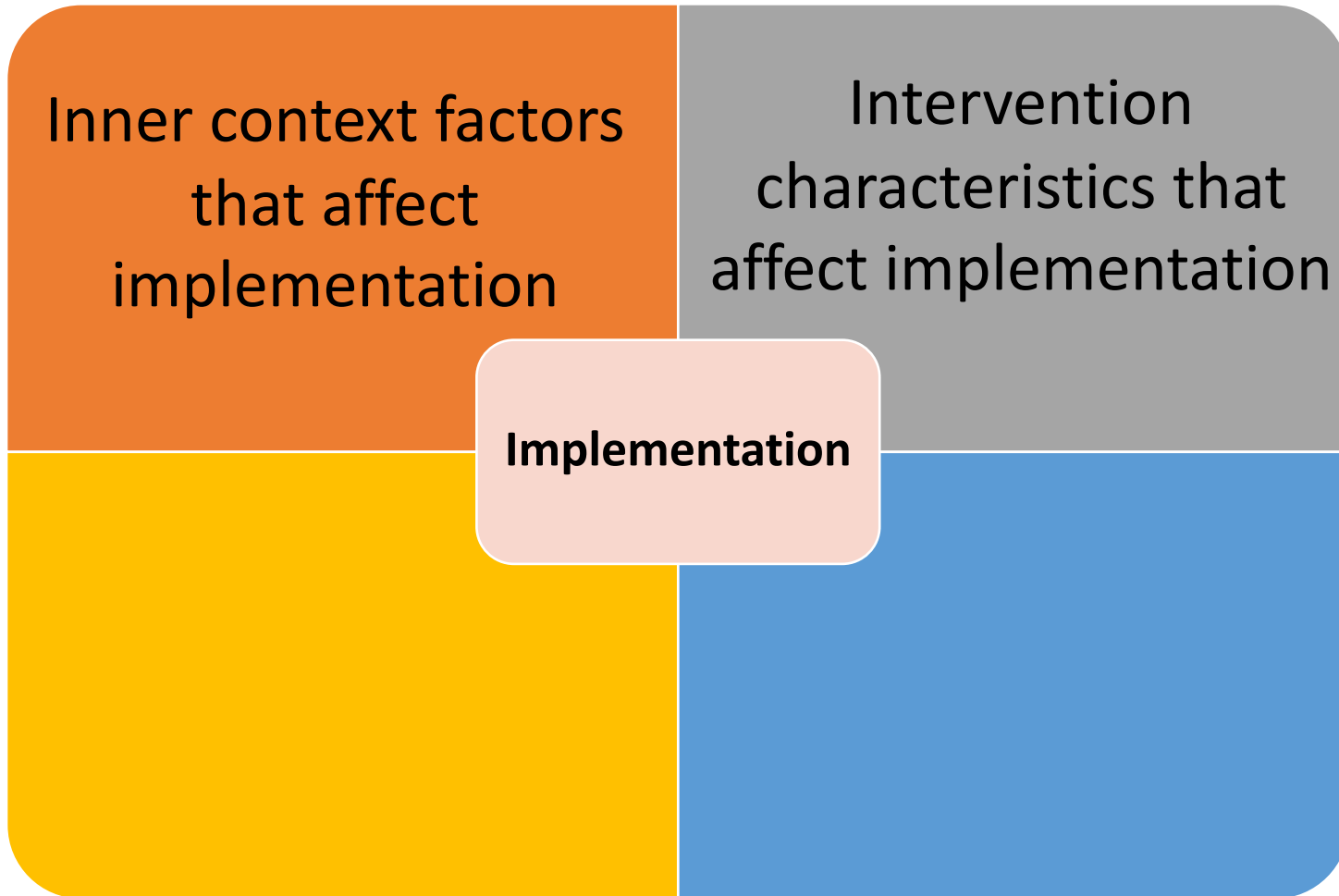
Active Implementation Themes



“Readiness of the other staff who were ready to accept changes, we didn’t face much resistance, they were resisting but after sometime they changed...”

- Surgical provider, Facility 2

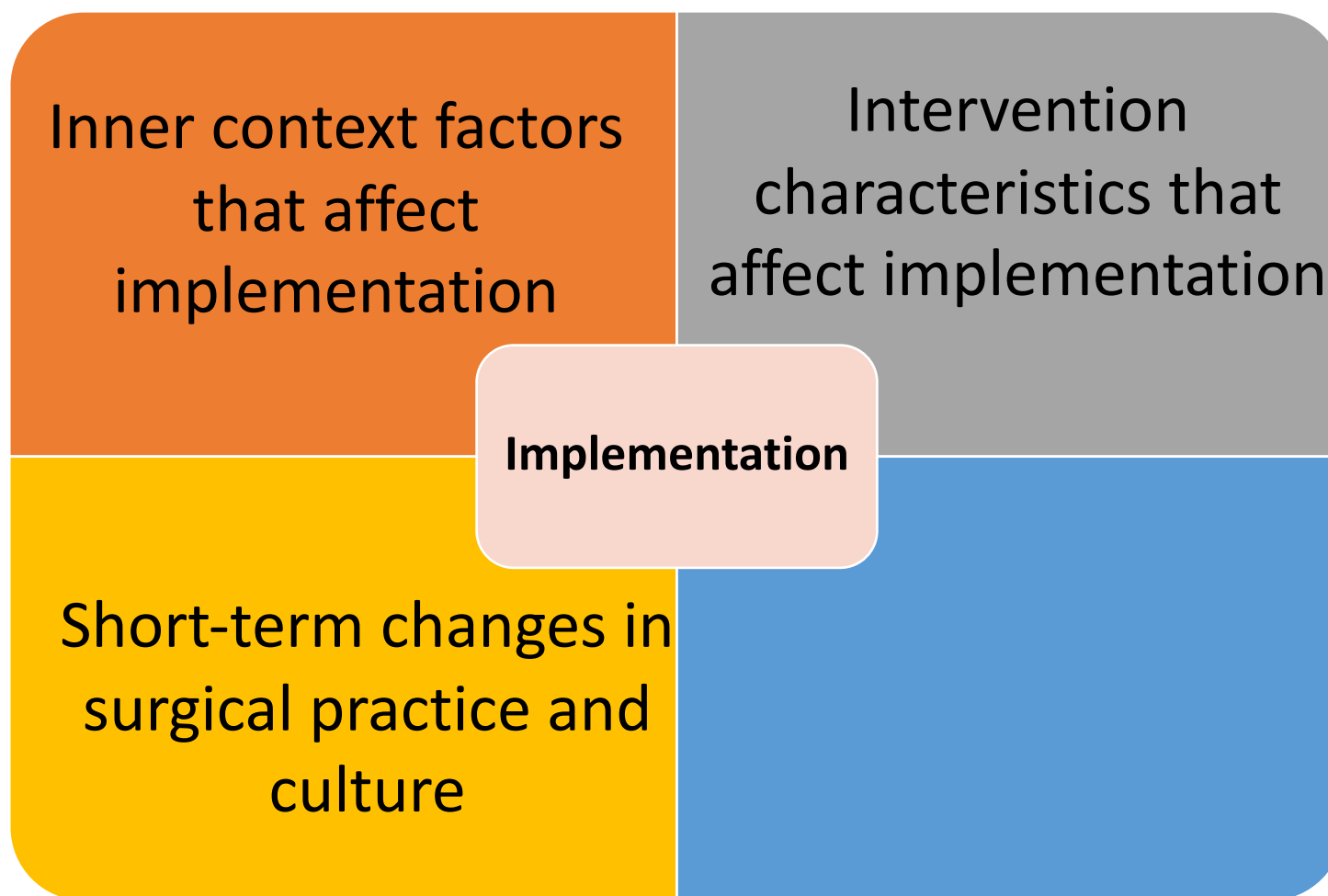
Active Implementation Themes



“Second, this training helped to reduce the cost of the hospital because initially we were using much antibiotics, so we have multiple antibiotics in a short time and there is another time we don’t have antibiotics at all.”

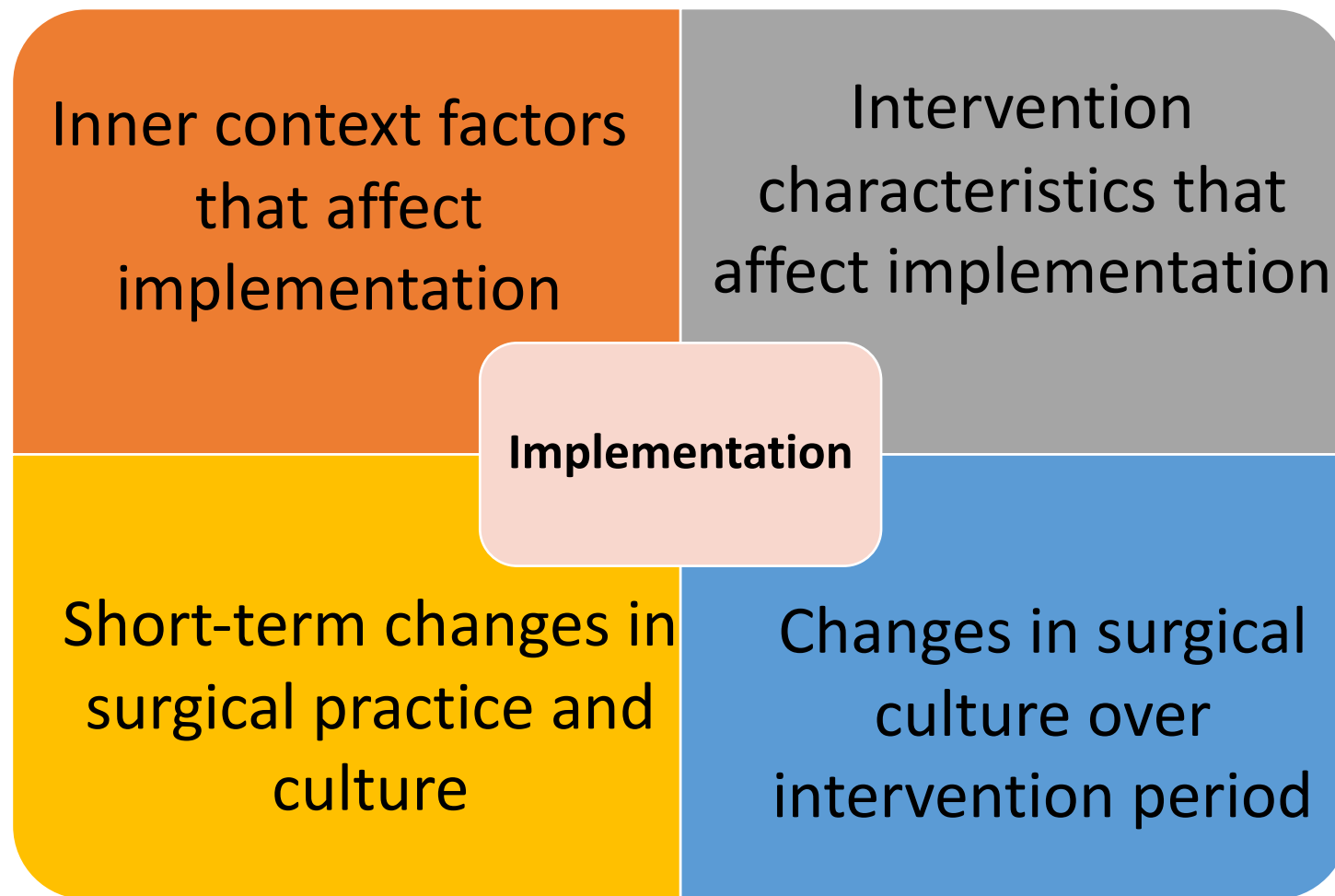
– Surgical provider, Facility 1

Active Implementation Themes



“There is also continuous training such as the ECHO program whereby there are case presentations from different hospitals and they share their experiences and it’s live with question and answers sessions and you just learn.”
– Medical officer in charge, Facility 3

Active Implementation Themes



“In safe surgery there is minimal use of antibiotic and other medical supplies so the cost, which we used to have, now it is reduced after training because we are using it efficiently based on evidence and, evidence-based practices which we were taught.”
 - Medical officer in charge, Facility 1

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Discussion



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Implications and Recommendations

- Sustainment: ongoing process for SS2020
- Opportunity to examine the implementation of SS2020 longitudinally.
- We show how implementation can be monitored and evaluated for multi-component surgical interventions in LMICs.
- Vital steps and considerations in EPIS phases to ensure implementation success.
- More research in LMICs utilizing the EPIS framework is needed to propose adaptations, particularly for safe surgery interventions.

References

1. Biccard BM, Madiba TE, Kluyts HL, et al. Perioperative patient outcomes in the African Surgical Outcomes Study: a 7-day prospective observational cohort study. *Lancet*. 2018;391(10130):1589-1598. doi:10.1016/S0140-6736(18)30001-1
2. Sobhy S, Arroyo-Manzano D, Murugesu N, et al. Maternal and perinatal mortality and complications associated with caesarean section in low-income and middle-income countries: a systematic review and meta-analysis. *Lancet*. 2019;393(10184):1973-1982. doi:10.1016/S0140-6736(18)32386-9
3. Aarons, Gregory A et al. “Advancing a conceptual model of evidence-based practice implementation in public service sectors.” *Administration and policy in mental health* vol. 38,1 (2011): 4-23. doi:10.1007/s10488-010-0327-7

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Thank you!

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