OUTCOMES OF A SAFE SURGERY INTERVENTION ON CESAREAN SECTION COMPLICATIONS: A QUASI-EXPERIMENTAL STUDY

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PRESENTATION OUTLINE

- Background
- Safe Surgery 2020 Tanzania
- Methods
- Results
- Conclusion
- Acknowledgements
Maternal mortality rates after C-sections are 50 times higher in Africa compared to high-income countries\(^1\)

1 in 6 women in Africa develop a Surgical Site infection after a C-section\(^2\)

1 in 10 African women die as a result of maternal sepsis following C-sections\(^3\)
Safe Surgery 2020 approach:
- Partnership with governments and facilities
- Focus on local surgical priorities
- Suite of interventions: staff, space, stuff, systems
- Build local capacity and empower surgical teams
- Evaluation to promote learning about how best to strengthen surgical services in LMICs

Research Aim:
- To assess the impact of Safe Surgery 2020 interventions on Cesarean section complications
SAFE SURGERY 2020 INTERVENTIONS

- Surgical services strengthening
- Mentoring
- Safe caesarian birth training
- Sterilization training
- Safe anesthesia for obstetrics training
- Facility accelerator fund
- Data Strengthening Intervention
- Leadership for surgical safety training
- Project Echo
- Touch Surgery
SAFE SURGERY 2020 METHODS

- **Study Design:** Longitudinal quasi-experimental study in 10 intervention and 10 control facilities
- **Setting:** Lake Zone of Tanzania
- **Methods:** Data was collected prospectively for 3 months pre-intervention (2018) and 3 months post-intervention (2019) through daily surveillance by trained medical data collectors. A total of 2,243 patients pre-intervention, and 2,345 patients post-intervention undergoing C-sections were enrolled in the study.
- **Outcomes:** Rates of maternal sepsis, SSIs and maternal mortality in C-section patients
- **Analysis:** Difference-in-difference analysis used to evaluate changes in rates between intervention and control hospitals
RESULTS – MATERNAL SEPSIS

Change in Intervention: -4%
Change in Control: -0.8%
P<0.0001
RESULTS – SURGICAL SITE INFECTION

Change in Intervention: -2.5%
Change in Control: -3.6%
P=0.568
RESULTS – DEATH RATE

Change in Intervention: -0.28%
Change in Control: -0.1%
P=0.63
CONCLUSION

- Safe Surgery 2020 Tanzania implementation was associated with improvements in surgical outcomes
- Among all women who had a C-section performed in an intervention facility, maternal sepsis rates decreased by 4% as a result of Safe Surgery 2020 interventions
- The intervention has potential to improve surgical quality and safety of C-sections for mothers in Tanzania
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