

# Strengthening Surgical Quality Data Collection and Reporting in Tanzania's Lake Zone: A Mixed Methods Assessment

William Lodge II, MSc<sup>1</sup>; Gopal Menon, MD<sup>1</sup>; Salome Kuchukhidze, MPH<sup>1</sup>, Desmond Jumbam, MS<sup>1</sup>, David Barash, MD<sup>2</sup>; Supriya Mehta, PhD<sup>5,6</sup>; Sarah Maongezi, MD, MPH<sup>9</sup>; Steve Kisakye<sup>7</sup>; Shehnaz Alidina, SD, MPH<sup>1</sup>; Boniface Nguhuni, MD, MSc<sup>4</sup>; Augustino Hellar, MD<sup>5</sup>; Ntuli Kapologwe, MD, MPH, MBA-IHM<sup>4</sup>; Mira Meheš, MES, MBA<sup>3</sup>; Victoria Smith<sup>8</sup>; John Meara, MD, DMD, MBA; John Varallo, MD, MPH<sup>5\*\*</sup>

<sup>1</sup> Program in Global Surgery and Social Change (PGSSC) at Harvard Medical School; <sup>2</sup> GE Foundation; <sup>3</sup> G4 Alliance; <sup>4</sup> President's Office Regional Administration and Local Government (PORALG) Tanzania; <sup>5</sup> Jhpiego; <sup>6</sup> University of Illinois at Chicago School of Public Health; <sup>7</sup> Dalberg Development Advisors; <sup>8</sup> Assist International; <sup>9</sup> Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDEC) Tanzania

\*Mr. Lodge and Dr. Menon are co-first authors; \*\* Dr. Varallo is senior author

## Background

- Safe Surgery 2020 (SS2020) is a multi-partner collaboration aimed at strengthening the quality of surgical and anesthesia services in Tanzania.
- SS2020 partners include Dalberg, Jhpiego, G4 alliance, Assist International, and Program in Global Surgery and Social Change (PGSSC) at Harvard Medical School
- Accurate data collection is essential for assessing impact, however the quality of data in local facilities is poor [1,2].
- Strengthening surgical services in resource-poor settings is contingent on using high-quality data to demonstrate where resources are most needed.

## Study Objective

The objective of this study was:

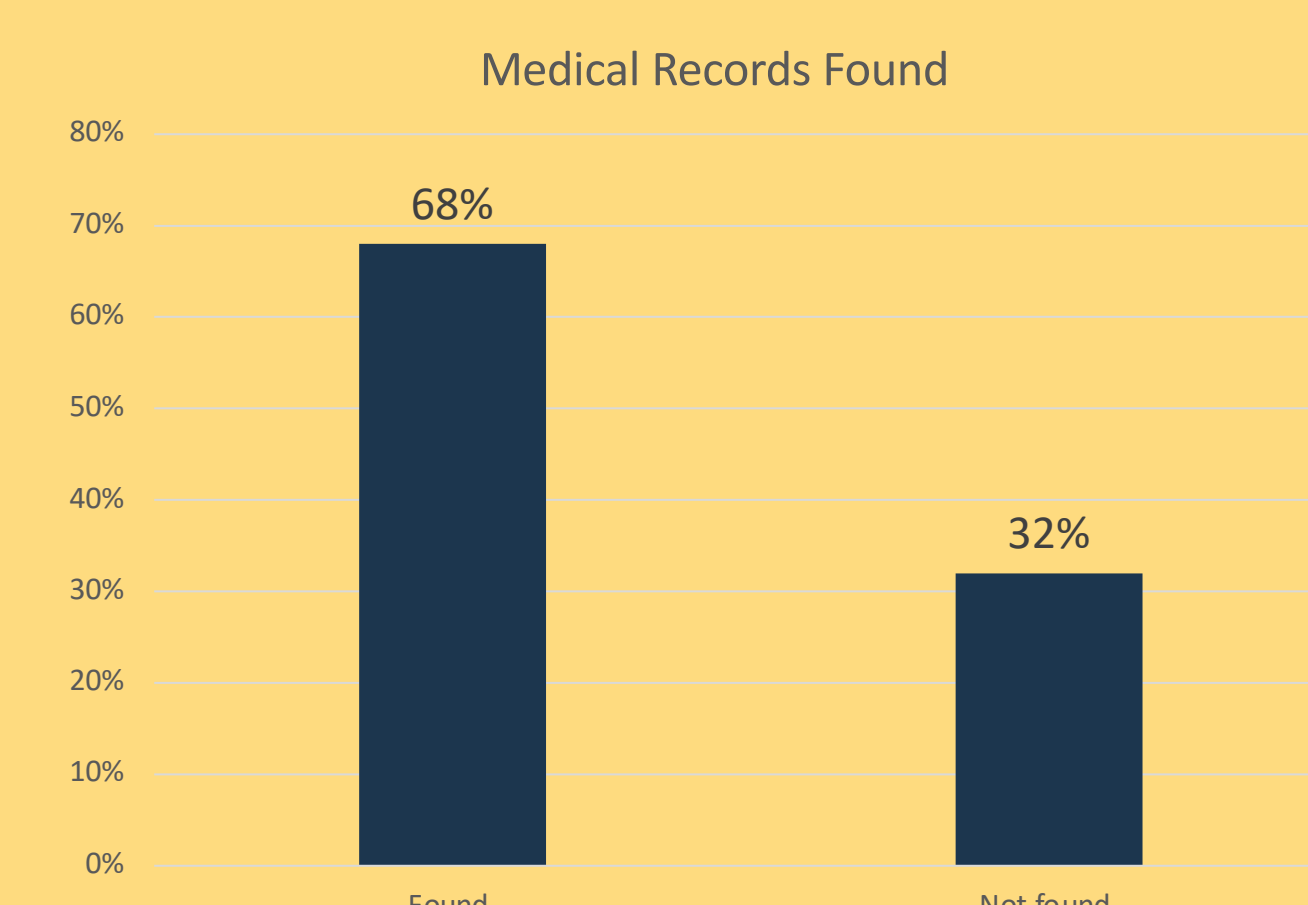
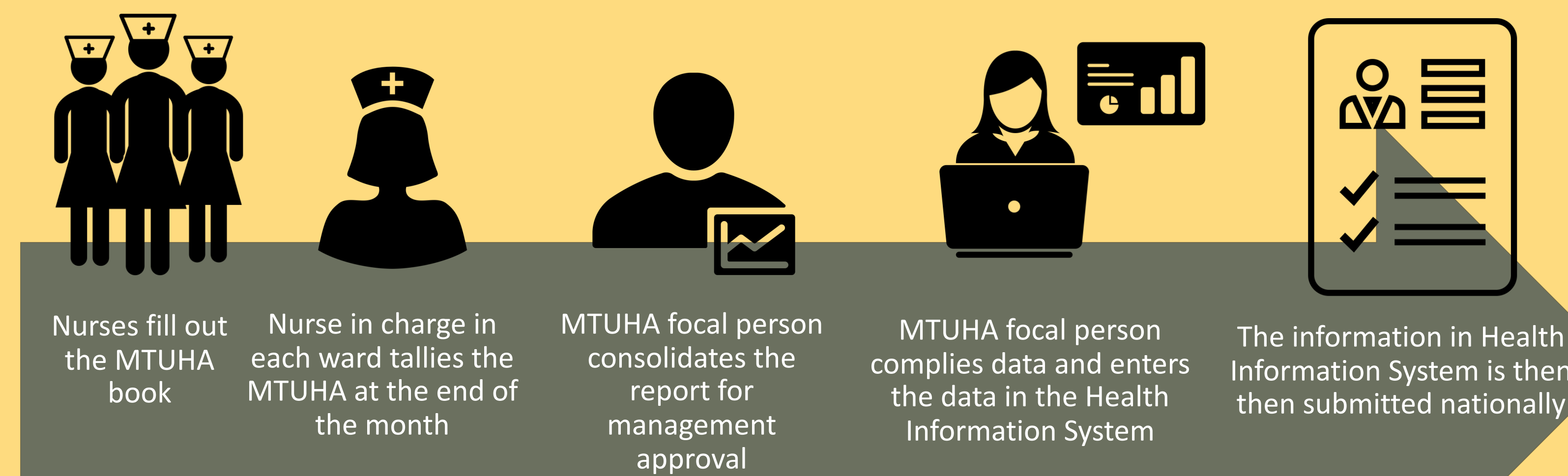
- 1) to understand the flow of data at the facility level;
- 2) to assess the documentation and completeness of patient files;
- 3) to develop a data strengthening intervention

## Methods

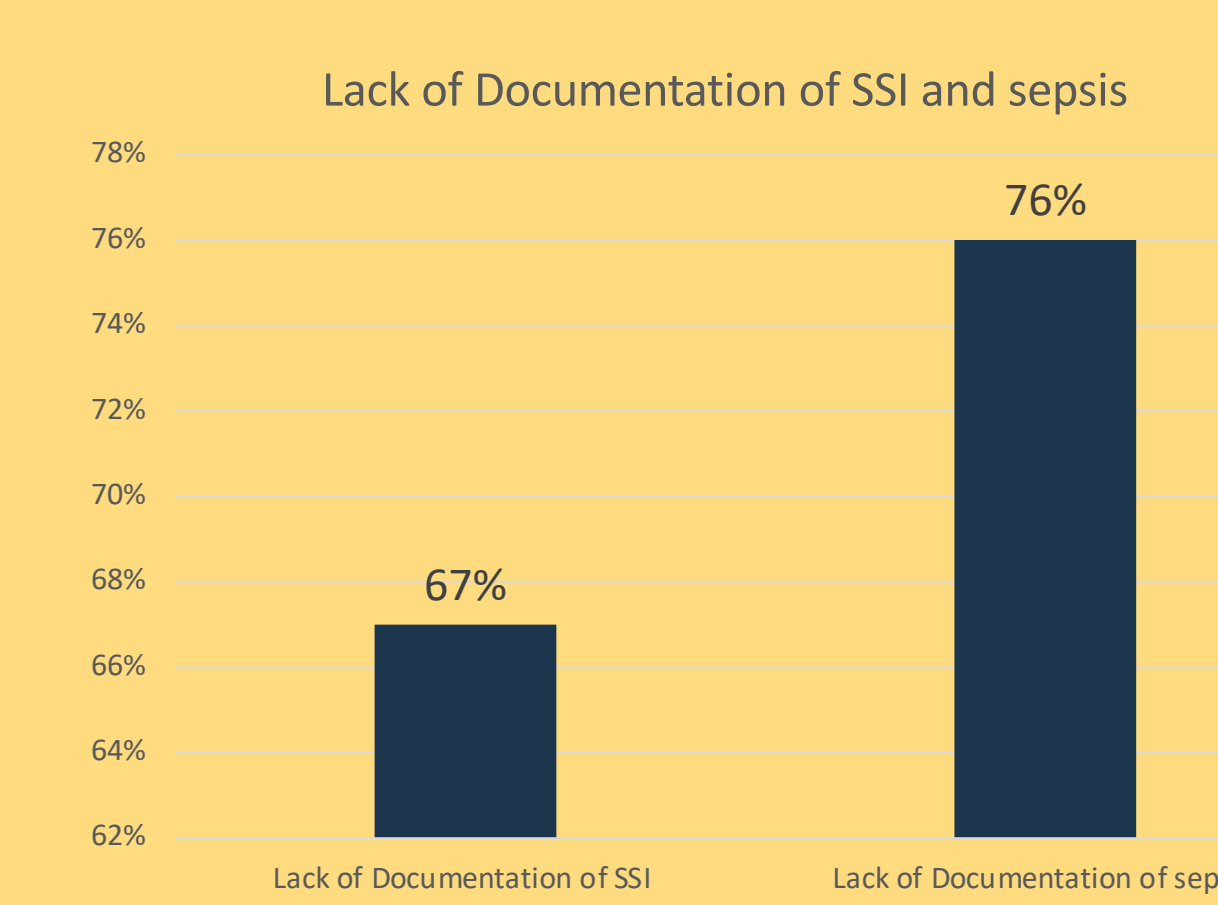
- We used a mixed-methods approach to develop a data strengthening intervention in 10 facilities in Mara and Kagera in the Lake Zone region of Tanzania.
- Semi-structured interviews were conducted with key stakeholders (i.e., surgical providers, medical chief officers, surgical nurses, or data managers) to understand data flow at the facility level.
- 157 patients files with proven surgical site infections (SSIs) and sepsis were retrospectively assessed for completeness, based on key diagnostic indicators such as: 1) documentation of SSI or/and sepsis 2) documentation of SSI or/and sepsis vitals and symptoms and 3) completeness of post-operative notes, daily progress notes, and doctors' orders.
- Assessment results informed a surgical data quality training module and trained Tanzanian clinical data collectors worked with providers to improve data collection and record keeping.

## Results

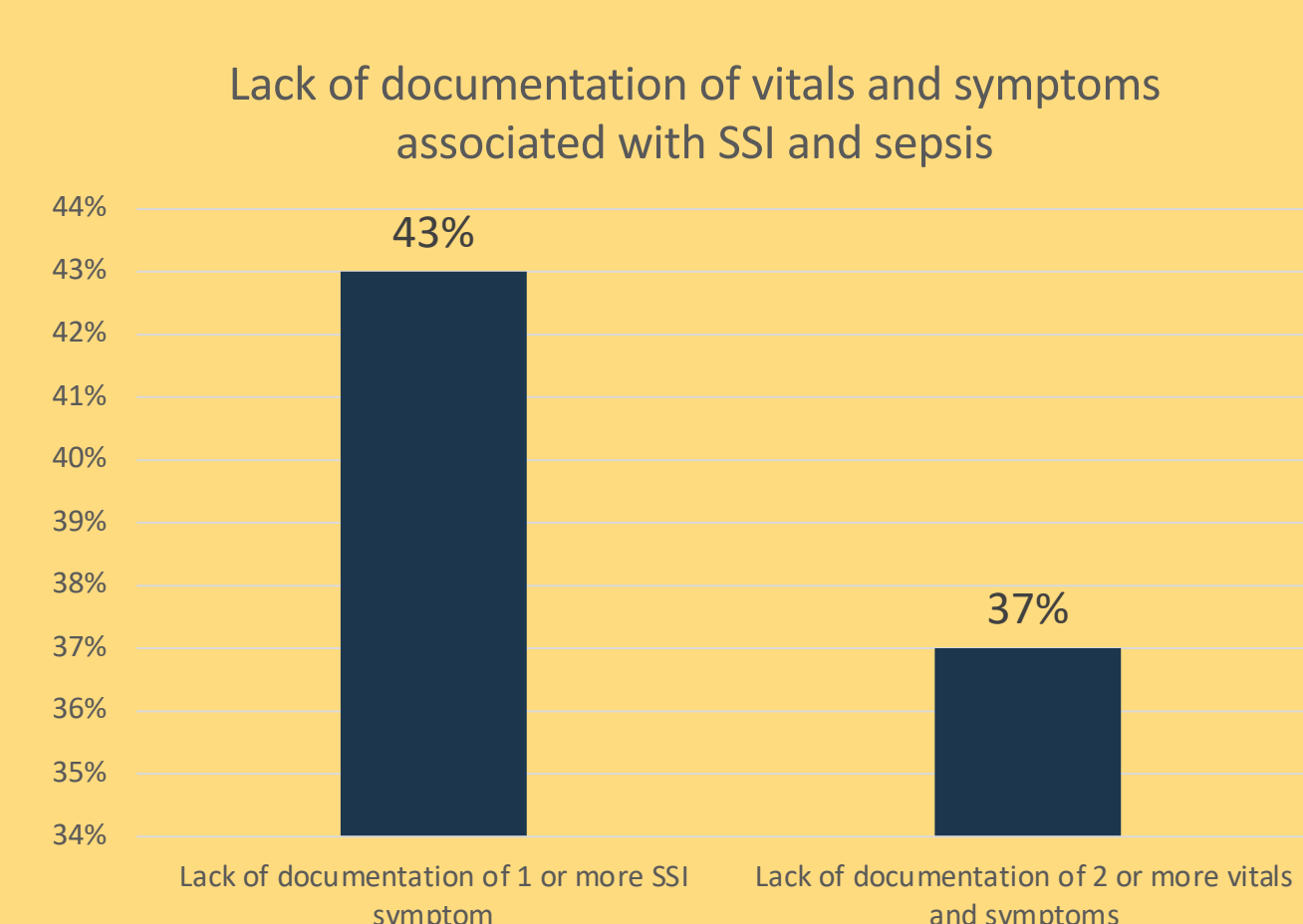
We found the data collection and reporting processes were uniform across all facilities with some resource dependent variation.



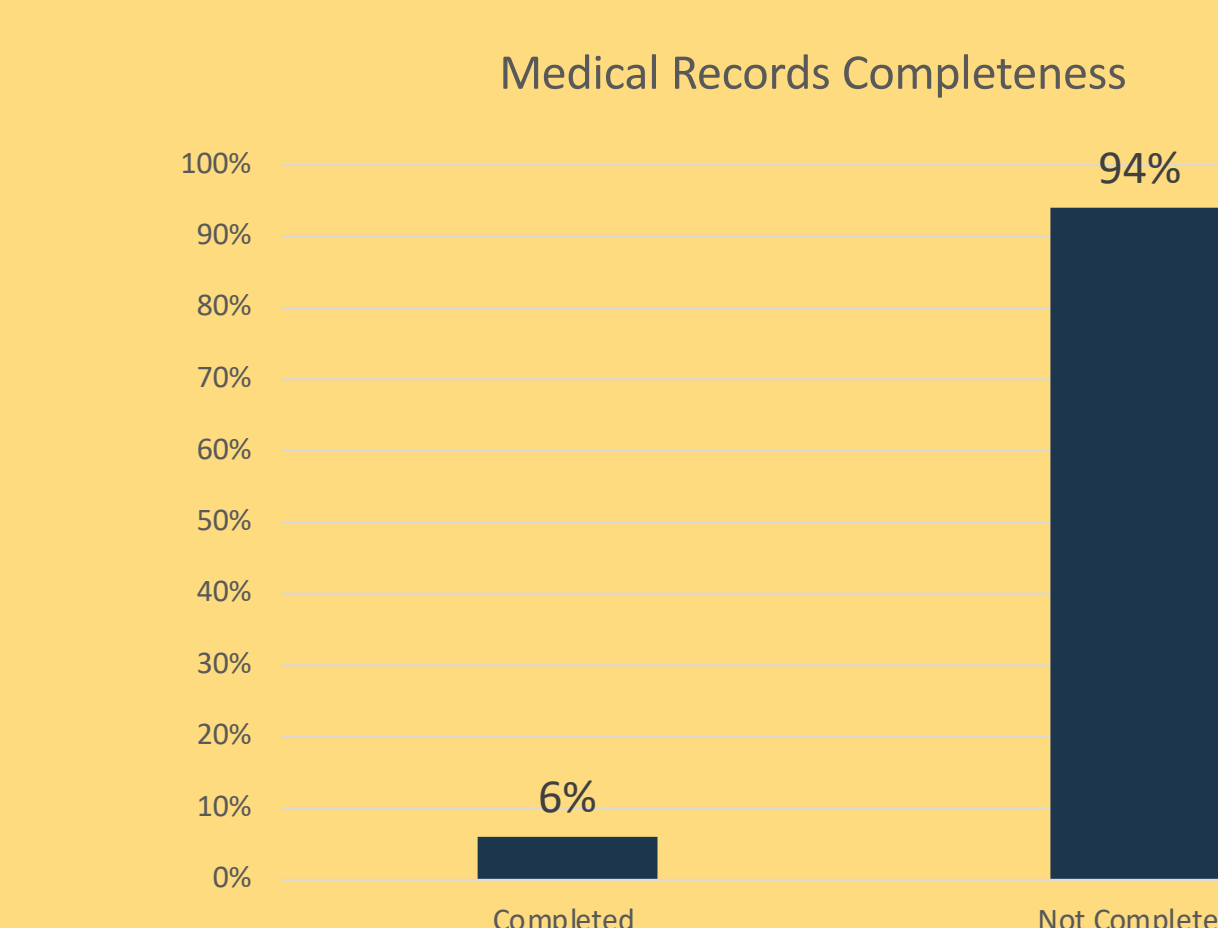
157 patients at the time of the assessment had SSI or/and sepsis, yet 107 (68%) medical records were found and analyzed for completeness.



Among the medical records reviewed with SSI, 67% did not include SSI or wound infection documentation, while most (76%) did not have sepsis documentation.



43% of medical records did not include any diagnostic criteria for SSI, while only 37% did not record 2 or more vitals or systems essential for diagnosing sepsis.



Few medical records (6%) were complete with documentation of SSI or/and sepsis and vitals respectively, completeness and utilization of inpatient clinical progress indicators and completeness of perioperative monitoring indicators.

## Limitations

- Due to the limited resources and difficulty obtaining medical records from the records department, we were unable to retrospectively review the quality of all medical records in our study.
- The data quality assessment is mainly focused on completeness. Other aspects of data quality, including the accuracy and reliability were not be evaluated.
- Each of the 10 health facilities vary in infrastructure, human resources, and catchment population which impact levels of record-keeping and medical record documentation.
- Since SS2020 is a multi-partner collaboration offering a package of interventions, it will be difficult to assess causality between data strengthening intervention and the improvement of data collection

## Conclusion

- Accurate, timely and reliable data are essential for strengthening surgical care both at the facility and national level.
- Medical records are an important primary data sources and play a crucial role in health systems strengthening, which depends on high quality at facility as well as the national level.
- Our results suggest that initiatives and programs directed at improving surgical outcomes must also address facility level issues around data in order to evaluate and sustain the impact

## References

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## Acknowledgements

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