



PROGRAM IN GLOBAL SURGERY AND SOCIAL CHANGE

Harvard Medical School

Development of an Intervention to Improve Surgical Data Quality at Hospitals in Ethiopia

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Host Organizations

- Safe Surgery 2020
- GE Foundation
- Ethiopia Federal Ministry of Health (FMOH)



Federal Ministry of Health

Background

Currently, there is a lack of quality surgical data throughout the world. Quality data is crucially needed in order to adequately assess surgical systems and affect change. This call for data needs to be integrated into national strategy and should start at the facility level.

Objective

To develop an intervention to improve collection of quality surgical data indicators

Methods

- Development of fifteen surgical Key Performance Indicators (KPIs) in collaboration with the Ethiopian Federal Ministry of Health's Saving Lives Through Safe Surgery (SaLTS) initiative (Table 1)
- Assessment of surgical data capacity at Safe Surgery 2020 hospitals to identify existing practices and areas of strength and improvement
- Ten Safe Surgery 2020 program hospitals in Amhara and Tigray regions selected as pilot sites for a novel intervention to improve quality of hospital-level surgical data

Table 1: Saving Lives Through Safe Surgery (SaLTS) Key Performance Indicators

KPI 1	Surgical Bed Occupancy Rate
KPI 2	Delay for Elective Surgical Admission
KPI 3	Mean Duration of In-Hospital, Pre-Elective Operative Stay
KPI 4	Patient Satisfaction
KPI 5	Rate of First Elective Case On-Time Theater Performance
KPI 6	Rate of Cancellation of Elective Surgery
KPI 7	Blood Availability Ratio for Surgical Patients
KPI 8	Emergency Surgical Access
KPI 9	Protection Against Catastrophic Expenditure
KPI 10	Surgical, Obstetric, and Anesthesia Provider Density
KPI 11	Peri-Operative Mortality Rate (POMR)
KPI 12	Surgical Volume
KPI 13	Surgical Site Infection (SSI) Rate
KPI 14	Anesthetic Adverse Outcome
KPI 15	Rate of Safe Surgery Checklist Utilization

Results

- 8-week training-based intervention developed focusing on improved collection of SaLTS KPIs

Table 2: Intervention Schedule of Activities

Week 1	Training of Trainers (TOT) Training of Clinical Providers
Weeks 2-8	On-Site Data Training/Mentoring Data Quality Checks
Post-Intervention	Regional Data and Analysis Workshop

- Introduction of seven new or revised hospital registries to aid surgical data collection and reporting
- Additional focus and training on five indicators of Safe Surgery 2020 programmatic interest:
 1. Surgical Volume
 2. Surgical Site Infection Rate
 3. Rate of Safe Surgery Checklist Utilization
 4. Anesthetic Adverse Outcome Rate
 5. Surgical Referrals Out
- Assessment of intervention effectiveness by a set of surveys and mixed-methods assessments developed using the Kirkpatrick model



Next Steps

- Intervention implementation in Amhara (February-April 2018) and Tigray (May – June 2018) regions
- Recommendations for scaling intervention components to Amhara Regional Health Bureau, Tigray Regional Health Bureau, and Ethiopia Federal Ministry of Health

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