

Lifebox Clean Cut program halves surgical infections across five countries

Addis Ababa/New York/London- August 26, 2025— A new study published in <u>Jama Surgery</u> has demonstrated that <u>Clean Cut</u>, a surgical site infection prevention program by <u>Lifebox</u>, the global safe surgery and anesthesia nonprofit, has successfully cut surgical site infections (SSIs) nearly in half across five low-resource countries.

Pioneered in Ethiopia and scaled in hospitals in Liberia, Madagascar, Malawi, India, and Bolivia, Clean Cut reduced SSI rates from 28% to 12%, a 49% relative risk reduction among more than 1,800 patients.

"Clean Cut demonstrates the power of collaboration in an LMIC-led program implementation proving that with the right systems and training, safer surgery is possible anywhere," said Dr. Assefa Tesfaye, Lifebox Clean Cut Clinical Lead and co-lead author. "Through peer-to-peer learning, Ethiopian clinicians mentored colleagues in five countries, showing how LMIC leadership can drive global change."

Surgical site infections are one of the leading causes of death following surgery, particularly in low- and middle-income countries where infection rates are up to three times higher than in high-income settings.

Clean Cut tackles this problem through six critical infection prevention steps: use of the WHO Surgical Safety Checklist, hand and skin antisepsis, antibiotic administration, instrument sterility, sterile field maintenance, and gauze counting.

According to data in the published study, compliance with these infection prevention practices significantly improved. For instance, the use of the WHO checklist increased from 11% to 61%, hand antisepsis enhanced from 61% to 93% and antibiotic timing from 90% to 98%.

"Patients in low-resource settings deserve equal access to safe surgical care," said Dr. Sedera Arimino, Lifebox Clean Cut Clinical Lead. "This study shows that Clean Cut is both effective and scalable across diverse health systems, helping advance equity and safety."

Clean Cut was first developed and piloted in Ethiopia, where it reduced infection rates by 35% across 12 hospitals. Its expansion relied on a combination of local leadership from clinicians who know their context and system best, and peer mentorship, where experienced Ethiopian clinicians guided hospital teams in other countries to adapt the program locally.

About Lifebox

Lifebox is a global nonprofit that saves lives through safer surgery and anesthesia. Through tools, training, and partnerships, Lifebox addresses the critical gaps in surgical systems to make surgery and anesthesia safer worldwide. Lifebox focuses on three core areas: anesthesia safety, surgical teamwork, and reducing surgical infection. Co-founded by Dr. Atul Gawande in 2011, Lifebox has worked in 116 countries and trained more than 13,000 healthcare providers to make 248 million surgeries safer. To learn more about Lifebox, visit_lifebox.org

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