

Global Surgery 2030: Evidence and solutions for achieving health, welfare, and economic development

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LMICs: Although this term has been used throughout the report for brevity, the Commission realises that tremendous income diversity exists between and within this group of countries.

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†Prof Rodas died March 2, 2015; we dedicate our report to him.

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EXECUTIVE SUMMARY

Remarkable gains have been made in global health in the past 25 years, but progress has not been uniform. Mortality and morbidity from common conditions needing surgery have grown in the world's poorest regions, both in real terms and relative to other health gains. At the same time, development of safe, essential, life-saving surgical and anaesthesia care in low-income and middle-income countries (LMICs) has stagnated or regressed. In the absence of surgical care, case-fatality rates are high for common, easily treatable conditions including appendicitis, hernia, fractures, obstructed labour, congenital anomalies, and breast and cervical cancer.

In 2015, many LMICs are facing a multifaceted burden of infectious disease, maternal disease, neonatal disease, non-communicable diseases, and injuries. Surgical and anaesthesia care are essential for the treatment of many of these conditions and represent an integral component of a functional, responsive, and resilient health system. In view of the large projected increase in the incidence of cancer, road traffic injuries, and cardiovascular and metabolic diseases in LMICs, the need for surgical services in these regions will continue to rise substantially from now until 2030. Reduction of death and disability hinges on access to surgical and anaesthesia care, which should be available, affordable, timely, and safe to ensure good coverage, uptake, and outcomes.

Despite growing need, the development and delivery of surgical and anaesthesia care in LMICs has been nearly absent from the global health discourse. Little has been written about the human and economic effect of surgical conditions, the state of surgical care, or the potential strategies for scale-up of surgical services in LMICs. To begin to address these crucial gaps in knowledge, policy, and action, the *Lancet* Commission on Global Surgery was launched in January, 2014. The Commission brought together an international, multidisciplinary team of 25 commissioners,

supported by advisors and collaborators in more than 110 countries and six continents.

We formed four working groups that focused on the domains of health-care delivery and management; workforce, training, and education; economics and finance; and information management. Our Commission has five key messages, a set of indicators and recommendations to improve access to safe, affordable surgical and anaesthesia care in LMICs, and a template for a national surgical plan. Our five key messages are presented as follows:

- 5 billion people do not have access to safe, affordable surgical and anaesthesia care when needed. Access is worst in low-income and lower-middle-income countries, where nine of ten people cannot access basic surgical care.
- 143 million additional surgical procedures are needed in LMICs each year to save lives and prevent disability. Of the 313 million procedures undertaken worldwide each year, only 6% occur in the poorest countries, where over a third of the world's population lives. Low operative volumes are associated with high case-fatality rates from common, treatable surgical conditions. Unmet need is greatest in eastern, western, and central sub-Saharan Africa, and south Asia.
- 33 million individuals face catastrophic health expenditure due to payment for surgery and anaesthesia care each year. An additional 48 million cases of catastrophic expenditure are attributable to the non-medical costs of accessing surgical care. A quarter of people who have a surgical procedure will incur financial catastrophe as a result of seeking care. The burden of catastrophic expenditure for surgery is highest in low-income and lower-middle-income countries and, within any country, lands most heavily on poor people.
- Investing in surgical services in LMICs is affordable, saves lives, and promotes economic growth. To meet present and projected population demands, urgent investment in human and physical resources for surgical and anaesthesia care is needed. If LMICs were to scale-up surgical services at rates achieved by the present best-performing LMICs, two-thirds of countries would

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