



# Global Surgery 2030

evidence and solutions for achieving health, welfare, and economic development

## REPORT OVERVIEW

### *A collective call for equity and integration in the provision of surgical and anaesthesia care*

In January 2014, President of the World Bank, Dr. Jim Yong Kim, called for a “shared vision and strategy for global equity in essential surgical care,” stating “surgery is an indivisible, indispensable part of health care.” This call came at a pivotal time for global health. As focus transitions from the Millennium Development Goals to a set of Sustainable Development Goals (SDGs) and commitments to Universal Health Coverage (UHC), the global community must develop strategies to reach these new aims.

Global Surgery 2030, the landmark initial report of The Lancet Commission on Global Surgery, describes the role of surgical and anaesthesia care in improving the health of individuals and the economic productivity of countries. Developed by a multidisciplinary team of 25 commissioners and collaborators from over 110 nations, the report presents findings on the state of surgical care in low-income and middle-income countries (LMICs), as well as a framework of recommendations, indicators and targets needed to achieve the Commission’s vision of *universal access to safe, affordable surgical and anaesthesia care when needed*.

These findings create a powerful argument to (1) governments in LMICs to strengthen surgical services and the national health systems that provide them, (2) global health and development organisations to include indicators of surgical care within existing health goals and monitoring systems, (3) funding agencies to invest in surgical care as a tool for poverty alleviation and general welfare gains, (4) international partners to support local leaders in their efforts to provide equitable surgical care, and (5) the general public to lobby for access to surgical services for all.

## Surgery as a neglected component of health systems

Over the past twenty years, global health has focused primarily on individual diseases. This has led to remarkable reductions in death and disability from certain conditions. However, these gains have not been mirrored by similar improvements to health systems, integration of services, and hospital-based care, nor have they been equitably distributed amongst people of all socio-economic standings.

### *Surgical and anaesthesia care in many LMICs has been largely neglected*

Treatment for surgical conditions, a broad range of diseases that represent approximately 30% of the global burden of disease and span 100% of disease sub-categories, remains out of reach for the majority of the world’s population. This results in loss of life and reduced welfare for millions of people, and stunts economic development of countries, as demonstrated by the report’s five key messages.



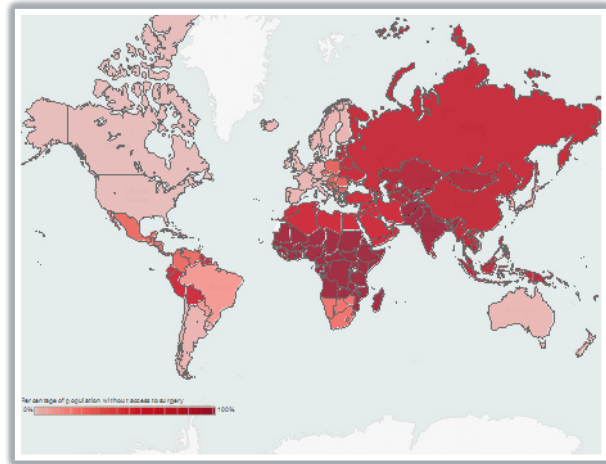
*28-32% of the global burden of disease can be attributed to surgically treatable conditions*

## Key Message 1: 5 billion people lack access to safe, affordable surgical and anaesthesia care when needed

Timely access to surgical care is essential to reduce death and disability from surgical conditions. Looking at four dimensions of access – timeliness, surgical capacity, safety, and affordability – we found that 5 billion people are unable to reach surgical services (Figure 1). Over half the global population cannot access the treatment they need should they, for example, haemorrhage after childbirth, suffer a burn, or develop cancer. Access to care is worse for individuals in LMICs, and for those in the poorest wealth quintiles within countries of all income groupings.

### 2030 Target: 80% coverage of essential surgical and anaesthesia services

The Commission has a target of 80% coverage of essential surgical and anaesthesia services per country by 2030 as a measure of progress towards timely access to surgery. Reaching this target will require integration of surgical services across all levels of care (from community referral networks to first-level and higher-level hospitals), and a commitment to address factors that result in delays in seeking, reaching, and receiving safe and affordable surgical and medical care.



**Figure 1.** Proportion of the population without access to safe, affordable surgery and anaesthesia by region

## Key Message 2: 143 million additional surgical procedures are needed each year to save lives and prevent disability

Region	Estimated annual unmet surgical need of region (surgical cases)
Caribbean	131 050
Central Asia	910 432
Central Europe	678 358
Central sub-Saharan Africa	4 192 980
East Asia	27 956 507
Eastern sub-Saharan Africa	17 555 748
North Africa and Middle East	2 115 011
Oceania	55 196
South Asia	57 791 550
Southeast Asia	12 480 939
Southern sub-Saharan Africa	291 000
Western sub-Saharan Africa	18 909 507
<b>Global total</b>	<b>143 068 278</b>

**Table 1.** Regions with unmet need for surgical care as identified by the Lancet Commission on Global Surgery.

When surgical care is not readily available, easily treatable conditions become diseases with high fatality rates. Obstructed labour results in death for both mother and infant; cleft lip and palate becomes an impediment to normal growth and development for a child, and a broken bone leads to life-long disability for a young man working to provide for his family. We found that performance of a minimum of 143 million additional surgical procedures are necessary each year to save lives and prevent disability (Table 1). This need is greatest in the poorest regions of the world, including Western, Eastern, and Central sub-Saharan Africa, and South and Southeast Asia.

### 2030 Target: 5,000 procedures per 100,000 population

The Commission has a target of 5,000 procedures annually per 100,000 population by 2030 as a measure of met need for surgical and anaesthesia care. Reaching this target will require a broad expansion of surgical and health systems, including doubling of the surgical workforce within the next fifteen years. Expansion of surgical volume must be accompanied by a focus on quality, safety, and equity driven by local implementers.

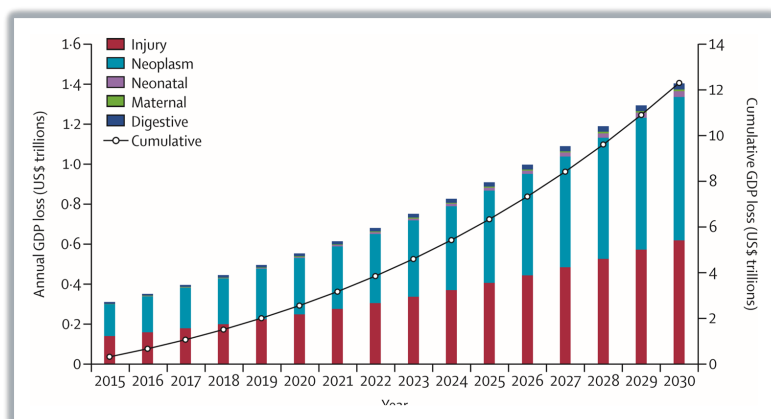
## Key Message 3: 33 million individuals face catastrophic health expenditure due to payment for surgery and anaesthesia each year

Protection against catastrophic out-of-pocket payments for health care is a critical component to ensuring affordable access to essential health services. Catastrophic expenditure is defined as direct medical payments for surgical care that exceed 10% of total income or 40% of income after basic needs for food and shelter are met, and out-of-pocket payments are defined as private expenditures. We found that 33 million cases of catastrophic expenditure occur annually from the direct medical costs of surgical services, and an additional 48 million cases occur each year when non-medical costs, such as food and transportation expenses, are included. One quarter of all people who have a surgical procedure will face financial catastrophe as a result of seeking care. This financial burden falls most heavily on the poor. Financial catastrophe from seeking surgical care occurs most often for individuals in LMICs, and for those in the poorest wealth quintiles within countries of all income groupings.

### 2030 Target: 100% protection against catastrophic expenditure

The Commission has a target of 100% protection against catastrophic expenditure from out-of-pocket payments for surgical and anaesthesia care by 2030. Reaching this target will require an approach to financing surgical services that accounts for the needs of the poor, including financing mechanisms based on pooling of risk through general taxation or insurance models rather than user fees at the time of care. The Commission supports a progressive pathway to UHC that (1) commits to coverage for the poor from the beginning, and (2) includes surgery within all basic UHC packages, platforms, and relevant policies.

## Key Message 4: Investment in surgical and anaesthesia services is affordable, saves lives, and promotes economic growth



**Figure 2.** Annual and cumulative GDP lost in low-income and middle-income countries from five categories of surgical conditions (injury, neoplasm, neonatal, maternal, digestive) - 2010 US\$, purchasing power parity

Scaling up surgical and anaesthesia services to meet current population needs will require wide-scale financial investments in LMICs. If LMICs were to scale-up surgical services at an annual rate of 9% (a rate previously achieved by Mongolia, a high-performing country) to reach a surgical volume target of 5,000 procedures per 100,000 population, the total cost by 2030 would be approximately \$420 billion. Although this financial cost of surgical expansion is significant, the cost of inaction on national incomes is much greater. The lost output (total GDP losses) will cost LMICs a total of \$12.3 trillion dollars (Figure 2), reducing annual GDP growth as much as 2%.

### 16.9 million lives lost due to surgical conditions in 2010

An estimated 16.9 million lives were lost in 2010 from conditions requiring surgical care, and at least 77.2 million disability-adjusted life-years could be averted each year through provision of basic surgical services. Financing surgical expansion in a way that decreases death and disability for patients and maximizes economic benefits for countries is both feasible and cost-effective. However, it will require mobilization of domestic and international funding sources, as well as a commitment to surgical care as a component of national health services. Funding generation will be aided by increased transparency and accountability to monitor financial flows and innovative methods to reduce costs for both patients and health systems.

## Key Message 5: Surgery is an indivisible, indispensable part of health care

Surgical care is an integral component of health systems for all countries at all levels of development. Surgical services are required across all disease subcategories, throughout the life-course (from birth to death), and within all levels of care (from prevention to palliation). The burden of surgical conditions is growing both in total numbers as well as in relation to other health gains. When left untreated, these conditions exert substantial economic and welfare tolls on countries and their people. These damages are projected to grow exponentially. Safe, affordable surgical and anaesthesia care when needed is necessary to achieve local and global health goals, including prior commitments to improving individual diseases, efforts to strengthen the health and economic productivity of nations, and the new set of SDGs and targets for UHC, which both have 2030 end dates.

### *Delivery of surgical services and essential procedures must be embedded within targets for the SDGs and UHC*

Policy makers, implementers and funders must include surgical care as a necessary part of national health and development strategies. A focus on equitable and high-quality care must accompany a commitment to financial risk protection to best care for patients with surgical conditions. Finally, successful change must be locally driven by local leaders and supported by global partners in order to achieve health, welfare, and economic development for all.

#### Core indicators for monitoring universal access to safe, affordable surgical and anaesthesia care when needed

INDICATOR NAME	TARGET
Access to timely essential surgery	A minimum of 80% coverage of essential surgical and anaesthesia services per country by 2030
Specialist surgical workforce density	100% of countries with at least 20 surgical, anaesthesia and obstetric physicians per 100 000 population by 2030
Surgical volume	80% of countries by 2020 and 100% of countries by 2030 tracking surgical
Perioperative mortality rate (POMR)	80% of countries by 2020 and 100% of countries by 2030 tracking POMR;
Protection against impoverishing expenditure	100% protection against impoverishment from OOP payments for surgical and anaesthesia care by 2030
Protection against catastrophic expenditure	100% protection against catastrophic expenditure from OOP payments for surgical and anaesthesia care by 2030