



# Global Surgery 2030

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

## Policy brief:

### INVESTING IN SURGICAL AND ANAESTHESIA CARE

In September 2015, United Nations member states will adopt a new set of Sustainable Development Goals (SDGs) with a 2030 end date. A landmark report, called *Global Surgery 2030: evidence and solutions for achieving health, welfare and economic development* makes the case that sustainable development will be hard to achieve unless the international health and development community addresses the enormous global burden of surgical conditions.

The report, by The Lancet Commission on Global Surgery, an international group of 25 health experts, shows that surgical conditions impede economic development in low-income and middle-income countries (LMICs), where access to surgical care is poor. Without urgent investment in the scale-up of surgical services, these conditions will be a major barrier to national income growth, economic productivity, and improved human welfare. Surgical scale-up will require mobilization of both domestic and international finance and resources in most LMICs. However the estimated costs are small relative to the economic and welfare returns on investment countries will experience.

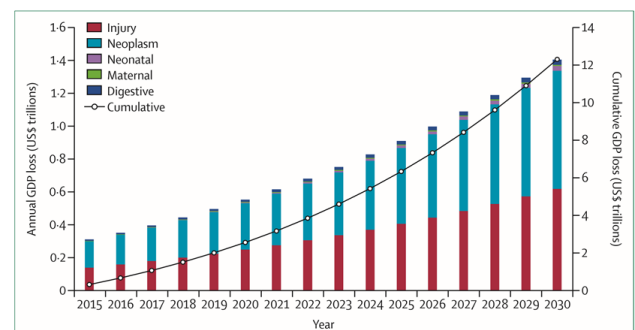
These findings provide a compelling rationale for national governments in LMICs, as well as donor agencies, to increase both investments in surgical services and in the national health systems required to support their delivery.

## The powerful economic case for investing in surgical care in LMICs

*Investing in scaling up surgical care in LMICs will dramatically improve public health by reducing death and disability. In addition, there is a powerful economic case for such investments:*

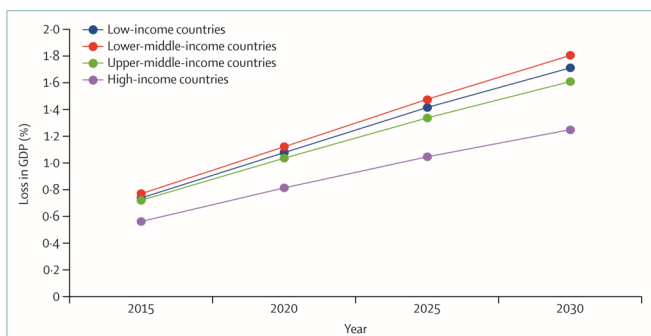
### ▪ *Surgical conditions impair economic productivity*

Surgical conditions, especially when left untreated, can reduce economic productivity. *Global Surgery 2030* measures the value of lost economic output due to surgical conditions— that is, the GDP losses that occur as a result of depletion of the labour supply and capital stock. The report shows that LMICs will have projected losses in economic productivity from surgical conditions estimated at \$12.3 trillion (2010, US\$, PPP) between 2015-2030, unless urgent scale-up of surgical care occurs (Figure 1).



**Figure 1.** Annual and cumulative GDP loss in low-income and middle-income countries from five categories of surgical conditions. Based on the WHO Projecting the Economic Cost of Ill-Health (EPIC) model (2010 US\$, purchasing power parity). GDP=gross domestic product.

These losses will have a profound effect on national income, reducing annual GDP growth by as much as 2% in lower-middle income countries (Figure 2). Most of these losses will occur as a result of injuries, cancers, digestive diseases, and maternal and neonatal conditions.



**Figure 2.** Annual value of lost economic output due to surgical conditions. Data are percentage loss of GDP by World Bank income class, based on the WHO Projecting the Economic Cost of Ill-Health (EPIC) model (2010 US\$, purchasing power parity). GDP=gross domestic product.

#### ▪ *Surgical conditions impede welfare gains*

Economic productivity, as captured in national income accounts and measured using GDP, is only one way of measuring the returns on investing in surgical care. A limitation of using GDP is that it fails to capture the *intrinsic value* people place on improved health and on living longer. To quantify this intrinsic value, and how it is affected by surgical conditions, *Global Surgery 2030* used a measure called the value of a statistical life (VSL), which places a monetary value on the trade-offs people are willing to make for an increase in life expectancy. Using this VSL method, the report finds that in LMICs in 2010, illness and death from surgical conditions resulted in \$4.0 trillion (2010 US\$ PPP) in total welfare losses.

#### ▪ *Surgical and anaesthesia care is highly cost-effective in LMICs*

Surgical services are a cost-effective health investment in resource-poor settings. Delivery of a platform of surgical and anaesthesia services at the first-level (district) hospital has proven to be very cost-effective in all major LMIC regions, as measured by WHO cost-effectiveness ratios. Such delivery compares favourably to the delivery of other common public health interventions in LMICs, such as childhood vaccines, HIV medicines, and distribution of bed nets to prevent malaria.

#### ▪ *Out-of-pocket payments for surgical and anaesthesia care can cause catastrophic expenditure and impoverishment*

Although surgical care can be highly cost-effective as a health intervention, it can still be catastrophically expensive for individual patients if they have to pay out-of-pocket at the time they receive care. Out-of-pocket payment for surgical care occurs in many LMICs, because surgical interventions are not usually covered under publically-financed health care packages.

Globally, 33 million people every year face catastrophic health expenditure through paying for surgical care (catastrophic expenditure is defined as direct medical payments for surgical care that exceed 10% of their total income or 40% of their income after their basic needs for food and shelter are met). A further 48 million people experience catastrophic expenditure when the non-medical costs of care, such as transport and food, are included. Most of these people live in LMICs. Many more people do not seek care at all, or decide not to pursue surgical treatment as advised because they cannot afford the costs.

## Investing in surgical scale-up would have profound economic and welfare benefits

*Increasing access to safe, timely, and affordable surgical and anaesthesia care would produce substantial economic and welfare gains. Such gains will only be possible if countries and the international community commit to three key actions:*

- *Include essential surgical care within publically-financed health coverage policies*

To improve access to surgery in LMICs and reduce catastrophic health expenditure from seeking care, health financing mechanisms that offer financial risk protection (FRP) are needed. Such protection is defined as safeguarding people against the financial uncertainty associated with the need to use and pay for health services. For many LMICs, FRP means moving away from user fees for surgical care, paid out of pocket, to indirect financing mechanisms such as general taxation or insurance models, which pool risk. Many countries are moving to introduce universal health coverage (UHC) policies and packages, which aim to promote equity, quality, and FRP within national health systems and services. UHC policies must include surgery and should cover at minimum a basic package of essential surgical and anaesthesia care, the precise composition of which should be determined by country needs.

- *Invest in the scale-up of surgical services within national health systems*

To meet population needs, surgical services and operative volumes in most LMICs will need to be substantially increased. The Commission examined different scenarios for scaling up surgical and anaesthesia care from 2012 to 2030 in LMICs, based on achieving a minimum operative volume required to meet basic population needs (i.e. 5000 procedures per 100,000 population). To achieve rates of surgical growth similar to a current best-performing LMIC (Mongolia), the total scale-up costs for 88 LMICs during 2012-2030 would be about \$420 billion. This number represents 1% of current total annual health expenditures in upper-middle income countries, and about 6% and 8% for lower-middle income and low-income countries respectively. Scale-up of surgical services in upper-middle income countries could be met through domestic health financing, but lower-middle income and low-income countries will require both domestic and international financing. Although the costs of scale-up are large, the costs of inaction are greater, and will accumulate progressively unless urgent action is taken.

- *Monitor financial flows to surgical care to ensure accountability and transparency*

An understanding of domestic and international financial flows to surgical care is crucial to quantify the current financing gap for surgery in LMICs at the country level. Currently financial flows are poorly tracked, as the major national and international health databases do not collect surgery-specific data. Improved tracking of surgical financing flows within national health accounts and databases of international development assistance for health is required to identify funding gaps, ensure that resources materialize from promises, and encourage accountability and transparency.