
Strengthening emergency and essential surgical care and anaesthesia as a component of universal health coverage

Report by the Secretariat

GLOBAL BURDEN OF SURGICAL CONDITIONS

1. Every year, over 234 million surgical procedures are performed globally for a wide range of conditions involving patients of all age categories and in every WHO Member State. The many conditions requiring surgical care – including obstructed labour, congenital anomalies, diabetes, cancer, cardiovascular disease, hernias, cataracts and injuries from road accidents, burns and falls – are common and affect all socioeconomic and ethnic groups.
2. Surgically treatable diseases are among the top 15 causes of disability worldwide. Conservative estimates find that 11% of the world's burden of disease stems from conditions that could be treated successfully through surgery, with low- and middle-income countries the most affected. As a result of such conditions going untreated, rates of maternal mortality are high, minor surgical pathologies become lethal, and treatable injuries progress to death. In fact, surgery is a potential avenue at some point for virtually every disease included in the Global Burden of Disease Study 2010.
3. The conditions for which surgery is one of the primary clinical solutions are expected to become increasingly common in the coming years, with increases of over 45% anticipated for common conditions such as heart disease, cancer, diabetes and injuries from road accidents by 2030.
4. Services for these conditions, including surgical care, are often provided through independent disease-specific initiatives rather than through a more sustainable integrated approach. The integrated delivery of surgical care is an important and growing need for the treatment of various health conditions across the life-course. The strain placed on health systems by the delivery of surgical care for the existing burden of surgical conditions is further intensified by communities' acute needs in the wake of disasters and emergencies.

THE IMPORTANCE AND COST EFFECTIVENESS OF SURGERY

5. *The world health report 2008* notes that surgical care is an integral component of the continuum of primary care yet,¹ it is estimated that more than 2000 million people in the world lack access to

¹The world health report 2008. Primary health care – now more than ever. Geneva: World Health Organization; 2008.

basic surgical care. In addition, the delivery of anaesthesia, which is essential to surgical services, is limited by deficiencies in human resources, equipment availability and system capacity.¹

6. In 2008, research identified strengthening surgical capacity, particularly at the district hospital level, as a highly cost-efficient means of reducing the global burden of disease. Notably, strengthening local surgical capacity is an approach that would both provide a high degree of financial protection to populations and lower the disability-adjusted life years lost in a cost-effective manner. The benefit:cost ratio for the expansion of surgical capacity at district hospitals has been found to be 10:1, with every US\$ 1 spent on strengthening local surgical capacity generating US\$ 10 through improved health and increased productivity.

GAPS IN SURGICAL SERVICES

7. In many parts of the world, access to essential and emergency surgical services is extremely limited, with less developed countries concentrating available surgical care in urban centres. In a global collaborative effort with Member States, the Secretariat elaborated the WHO's Integrated Management for Emergency and Essential Surgical Care e-learning toolkit² in order to guide policies and research for evidence-based planning and improvement of the quality and safety of surgical services, including the training of health care workers in essential procedures. Assessments utilizing one element of the toolkit, the tool for situational analysis to assess emergency and essential surgical care, have identified major inadequacies in numerous countries in the relevant infrastructure and human resources, and in surgical interventions, skills and equipment.³

8. The quality and safety of surgical care is also an area of concern. The Second Global Patient Safety Challenge: Safe Surgery Saves Lives addresses the safe delivery of surgical care.⁴ Findings from WHO's work suggest that globally surgery still involves high rates of morbidity and mortality: at least seven million people a year experience disabling surgical complications, and more than one million die.

ACTIONS AT COUNTRY LEVEL

9. The value of incorporating surgical care into health services as a step towards providing universal health coverage has been implicit in numerous previous resolutions adopted by the Health Assembly.⁵ Strengthening emergency and essential surgical care and anaesthesia services will strengthen health services overall, improve outcomes for populations such as mothers and children, and support WHO's work towards achieving the goal of universal health coverage.

¹ http://www.who.int/surgery/publications/topic_publications/en/index3.html (accessed 8 May 2014; country assessments for Afghanistan, Democratic Republic of the Congo, Ethiopia, Gambia, Ghana, India, Indonesia, Liberia, Malawi, Mongolia, Niger, Nigeria, Pakistan, Papua New Guinea, Sao Tome and Principe, Sierra Leone, Solomon Islands, Sri Lanka, Uganda, United Republic of Tanzania and Viet Nam).

² <http://www.who.int/surgery> (accessed 8 May 2014).

³ <http://www.who.int/surgery/publications/imeesc/en> (accessed 8 May 2014).

⁴ <http://www.who.int/patientsafety/campaigns/en/> (accessed 8 May 2014).

⁵ See resolutions WHA50.29, WHA57.1, WHA57.12, WHA57.18, WHA58.23, WHA58.31, WHA59.23, WHA60.22, WHA61.12, WHA62.1, WHA62.12, WHA63.17, WHA64.27, WHA65.20 and WHA66.7.

10. Although some work has been done to start to close the gaps in the coverage and quality of essential and emergency surgical care, there are a number of key actions that can be taken at country level to make progress in dealing with the global public health issue of strengthening surgical services.

11. **Raising awareness.** Awareness needs to be raised and sustained in Member States about the existence of low-cost interventions that reduce death and disability through improved access to safe surgical care. Member States need to encourage the integration of surgical services at the district and subdistrict levels of care as a move towards delivery of universal health care. As part of this effort, multidisciplinary stakeholders, including policy-makers, health providers and the media, need to be persuaded of the value of making the necessary investment to establish a firm evidence base and of providing sustainable emergency and essential surgical care services.

12. **Improving data on surgery for policy decision-making.** Evidence-based plans and policies need to be implemented to ensure the successful expansion of access to essential surgical services. Tools such as the WHO CHOICE project for choosing interventions that are cost-effective and WHO's global database on emergency and essential surgical care should be used to provide evidence-generated analyses for investment planning and for identifying financial resources to strengthen surgical services.

13. **Building political commitment.** Political commitment is essential for integrating surgical care initiatives into national health plans. Political priority should be given to support essential surgical care and anaesthesia within primary health care and universal health care in all countries.

14. **Monitoring and evaluation.** Monitoring and evaluation are necessary to ensure and sustain both improved access to surgical services and their quality and safety. Proper surgical records and adequate follow-up are crucial for ensuring safe procedures and their monitoring. Surgical services at district and subdistrict levels of care – such as those for emergencies, trauma, obstetrics, and anaesthesia – should be assessed and monitored with standardized tools.

15. **Strengthening the surgical workforce and infrastructure.** Member States, working with the Secretariat, will need to consider the surgical workforce and infrastructure, including equipment and supplies, in their overall strategies on health system planning. Member States should foster training in surgical care through the exchange of knowledge and expertise, using networks and global partnerships that encourage surgical capacity-building with a special focus on first referral health facilities and primary health care. Institutions need to review curricula in surgical training to ensure that they are adapted to meet the growing use of surgical services and the provision of continuing education for the surgical workforce.

16. **Fostering global collaboration and partnerships.** Coordination between health ministries, professional bodies, nongovernmental organizations, national governments, international organizations, academia, and the WHO Global Initiative for Emergency and Essential Surgical Care is crucial in order to support Member States in strengthening surgical care systems.

ACTION BY THE EXECUTIVE BOARD

17. The Board is invited to note this report and provide further guidance.

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