

- 11 CenterWatch. The Medicines Company, Alnylam develop RNAi therapeutics for hypercholesterolemia. *CenterWatch News Online* Feb 4, 2013. <http://www.centerwatch.com/news-online/article/4393/the-medicines-company-alnylam-develop-rnai-therapeutics-for-hypercholesterolemia> (accessed Sept 6, 2013).
- 12 Giugliano RP, Desai NR, Kohli P, et al. Efficacy, safety, and tolerability of a monoclonal antibody to proprotein convertase subtilisin/kexin type 9 in combination with a statin in patients with hypercholesterolaemia (LAPLACE-TIMI 57): a randomised, placebo-controlled, dose-ranging, phase 2 study. *Lancet* 2012; **380**: 2007–17.
- 13 Stein EA, Gipe D, Bergeron J, et al. Effect of a monoclonal antibody to PCSK9, REGN727/SAR236553, to reduce low-density lipoprotein cholesterol in patients with heterozygous familial hypercholesterolaemia on stable statin dose with or without ezetimibe therapy: a phase 2 randomised controlled trial. *Lancet* 2012; **380**: 29–36.
- 14 Stein EA, Mellis S, Yancopoulos GD, et al. Effect of a monoclonal antibody to PCSK9 on LDL cholesterol. *N Engl J Med* 2012; **366**: 1108–18.

## Surgery and global health: a *Lancet* Commission

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Delivery of surgical care—defined here as surgery, anaesthesia, nursing, and work by allied health professionals, including managers—plays a fundamental part in prevention, diagnosis, treatment, and palliation of a broad range of medical disorders (figure), and is a crucial component of a properly functioning health-care system and a prerequisite for universal health coverage. Today, an estimated two billion people worldwide are without adequate access to surgical care,<sup>1</sup> and a substantial global gap exists between surgical need and the equitable provision of safe surgical care. Low-income and middle-income countries have the greatest burden of untreated surgical disease; addressing this inequity—borne largely by low-income populations—is a moral imperative for the so-called reimagining of global surgery.<sup>2</sup>

In addition to the moral imperative, there are also strong economic reasons to prioritise surgery. The untreated surgical disease burden translates into great economic strain on local and regional economies.<sup>3</sup> However, despite the cost-effectiveness of providing surgical interventions in resource-constrained environments,<sup>4</sup> there is a perceived absence of political priority both nationally and globally, and a paucity of policy support and scalable solutions for development of functional surgical systems in low-income and middle-income countries.

Surgery has now reached a crucial juncture in global health. A *Lancet* Commission on Global Surgery is timely. A commission is needed to acknowledge surgical care delivery as a core component of health systems, and to embed surgical care within present global health initiatives and the post-2015 global health agenda. The *Lancet* Commission on Global Surgery will engage experts across the global health community to define the best strategies for provision of surgical care with a focus on low-income and middle-income health systems, while also recognising the major issues related to equitable

delivery of high-quality surgical care in areas of conflict, disaster, and in high-income settings. The Commission will provide advocacy for definitive action and an impetus for implementation of surgical health system reform.

The commissioners include clinicians, scientists, educators, and policy leaders in multiple and allied health specialties related to surgical care delivery from around the world. The Commission will have three cochairs leading the process (John G Meara, Andrew J M Leather, and Lars Hagander) who will also call on a group of international advisers to provide specific content expertise for the many different aspects of the Commission's remit. The process will be open and consultative, incorporating advice and input from all stakeholders involved in providing, funding, or governing surgical care.

Seven of the initial commissioners began the planning process during the spring of 2013. After preparatory meetings in Boston, London, and Lund, and multiple teleconferences, the Commission on Global Surgery will formally launch on Jan 17–18, 2014, in Boston. The first meeting will convene more than 80 people including commissioners, advisers, and global health leaders from around the world. Additionally, it will have representatives from previous commissions and other global health initiatives to generate a unified force for change. After the Boston meeting, two subsequent meetings will be held in Sierra Leone in May, and at a venue yet to be decided in September.

The Commission will begin by examining the present state of surgery within the global health agenda and will then characterise the role, nature, and range of surgery within health systems. This initial investigation will build on the growing body of global surgery literature, and will be coordinated by four working groups concentrating on care delivery, workforce, information, and finance. Leadership and governance

will be a crosscutting theme for each working group. Identification of the crucial barriers that prevent universal access to safe, affordable, high-quality surgical care will be an important next step leading to scalable priority actions that must be taken to overcome those barriers. Ultimately, the Commission will clarify the roles of governments, public and private providers, local communities, international bodies, donors and funders, academic institutions, professional colleges, non-governmental organisations, and industry in the attainment of universal access to safe, high-quality surgical care with financial protection for those in need.

To engage all stakeholders, galvanise the global surgery community, and ultimately affect policy decisions, an ongoing social media and internet strategy will be used. A *Lancet* Commission on Global Surgery website will be the communication home base, housing minutes, white papers, commentary from commissioners, blogs, and live video feeds from meetings. Our social media engagement process will occur on the Commission Twitter account @GSCommission and Facebook site. These venues will serve to provide a multidirectional communication platform for the growing global health and surgery community. This active, prospective engagement strategy will be crucial to the ultimate output from the Commission to assure a continued advocacy process well beyond the formal 2014 Commission meetings. The Commission invites all those interested to visit the website, Facebook page, and Twitter feed to participate throughout the process.

The Commission deliverables will be threefold. The first will be the formal Commission report. This report will define clear metrics for tracking surgical care structure, process, and outcomes at country level, and provide overall recommendations for all participants involved in and effecting surgical care delivery. The second will be a series of primary research articles that will highlight key areas in each of the four working groups that require further scientific investigation. Lastly, business-school style cases will be written for specific areas in the report that are best highlighted by specific case examples. These cases will serve as educational instruments for medical, dental, nursing, and public health courses, and surgical and anaesthesia training programmes.

Surgery and anaesthesia are integral, indivisible components of any properly functioning health system. Our vision is that all people should have access to safe, high

Lifecourse approach	Disease burden approach	Level of care approach
<ul style="list-style-type: none"> <li>• <b>Perinatal and infancy</b> eg, birth asphyxia, gastroschisis</li> <li>• <b>Childhood</b> eg, hernia, burns, abscesses</li> <li>• <b>Adolescence</b> eg, trauma</li> <li>• <b>Pregnancy and childbirth</b> eg, obstructed labour, haemorrhage, eclampsia</li> <li>• <b>Women's health</b> eg, reproductive tract neoplasms, genital prolapse, safe abortions</li> <li>• <b>Men's health</b> eg, prostatic hypertrophy, hypospadias</li> <li>• <b>Older people's health</b> eg, cataract surgery</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Trauma, injury, or violence</b> eg, fractures, burns</li> <li>• <b>Obstetric complications</b> eg, primary postpartum haemorrhage, obstetric fistula</li> <li>• <b>Congenital disease</b> eg, cleft lip and palate, clubfoot, anorectal malformation</li> <li>• <b>Neoplastic disease</b> eg, breast, gastric, or colorectal cancer</li> <li>• <b>Infection and sepsis</b> eg, gangrene, abscess, adult male circumcision</li> <li>• <b>General surgical conditions</b> eg, appendicitis, renal calculi, hernia, cholecystitis</li> <li>• <b>Infectious disease sequelae</b> eg, bladder cancer (schistosomiasis), rheumatic valvular disease</li> <li>• <b>Reproductive health</b> eg, adult male circumcision, malignancy</li> <li>• <b>Vision and hearing</b> eg, cataracts</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Prevention</b> eg, adult male circumcision for HIV infection, orchidopexy for undescended testes</li> <li>• <b>Screening</b> eg, postnatal screening for congenital anomalies (hip dysplasia, clubfoot)</li> <li>• <b>Diagnosis</b> eg, tumour biopsy, diagnostic laparoscopy</li> <li>• <b>Primary treatment</b> eg, incarcerated hernia</li> <li>• <b>Secondary treatment</b> eg, contracture release (leprosy, burns)</li> <li>• <b>Palliative</b> eg, stent for obstructed viscus</li> </ul>

Figure: Role of surgical care in the health of populations

quality, affordable surgical and anaesthesia care: universal surgical care with financial protection. The *Lancet* Commission on Global Surgery will develop consensus recommendations for all stakeholders involved in the funding, provision, or governance of surgical care, around which we can unite to achieve health equity for all.

For the *Lancet* Commission on Global Surgery website see <http://www.gscommission.com>  
 For the Commission Twitter account see <https://twitter.com/GSCommission>  
 For the Commission Facebook page see <https://www.facebook.com/GSCommission>

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We declare that we have no conflicts of interest. The *Lancet* Commission on Global Surgery group consists of John G Meara (USA), Andy J M Leather (UK), Lars Hagander (Sweden), Edna Adan Ismail (Somaliland), Emmanuel A Ameh (Nigeria), Lesong Conteh (UK), Anna Dare (New Zealand/UK), Eunice Derivois Merisier (Haiti), Shenaaz El-Halabi (Botswana), Paul Farmer (USA), Rowan Gillies (Australia), Sarah Greenberg (USA), Caris Grimes (UK), Russell Gruen (Australia), Thaim B Kamara (Sierra Leone), Chris Lavy (UK), Ganbold Lundeg (Mongolia), Nyengo Mkandawire (Malawi), Edgar Rodas (Ecuador), Nobhojit Roy (India), Richard Sullivan (UK), Iain H Wilson (UK), and Gavin Yamey (UK/USA).

- 1 Funk LM, Weiser TG, Berry WR, et al. Global operating theatre distribution and pulse oximetry supply: an estimation from reported data. *Lancet* 2010; **376**: 1055–61.
- 2 Farmer P, Kim J, Basilio M. Reimagining global health. An introduction. Berkeley: University of California Press; 2013.
- 3 Warf BC, Alkire BC, Bhai S, et al. Costs and benefits of neurosurgical intervention for infant hydrocephalus in sub-saharan Africa. *J Neurosurg Pediatr* 2011; **8**: 509–21.
- 4 Grimes CE, Henry JA, Maraka J, Mkandawire NC, Cotton M. Cost-effectiveness of surgery in low- and middle-income countries: a systematic review. *World J Surg* 2013; published online Oct 8. DOI:10.1007/s00268-013-2243-y.