

# Global Humanitarian Outreach: Global Anesthesia Beyond 2015

J.P. Abenstein, M.S.E.E., M.D., ASA President

K.A. Kelly McQueen, M.D., M.P.H., Chair  
Committee on Global Humanitarian Outreach

The events of 2015 have created a pivotal year for global surgery and anesthesia. Years and even decades of work are behind the successes of this year, but three recent landmark events have changed the future of safe anesthesia and surgery in low- and middle-income countries. The World Bank publication *Essential Surgery in Disease Control Priorities in Developing Countries, 3rd Edition*,<sup>1</sup> the Lancet Commission on Global Surgery<sup>2</sup> and World Health Organization resolution A68/15<sup>3</sup> are game changing for access to surgery and safe anesthesia in countries that have suffered from neglected surgical systems for decades.

Essential Surgery, published in March 2015, and available online at no cost [www.dcp-3.org](http://www.dcp-3.org), established a baseline of cost-effectiveness for basic surgical and obstetric procedures and anesthesia for all countries.<sup>1</sup> This information is essential to effectively refuting the argument that “surgery is too expensive”; these chapters document that 44 basic procedures are inexpensive and effective and that the disability and premature death that results from not providing them is the real expense.

The results of the year-long Lancet Commission on Global Surgery<sup>2</sup> were published in *The Lancet* on April 27, 2015. This comprehensive work involving ministers of health, physicians, nurses, patients and families documents the real need for emergency and basic surgery and safe anesthesia, and it provides realistic solutions for the surgical crisis in low- and middle-income countries. The goals outlined include:

- ▣ Increasing surgical, anesthesia and obstetric providers to a minimum level of 20/100,000.
- ▣ Requiring community hospitals to provide basic surgery so that a majority of the population has access within two miles (walking).
- ▣ Measuring perioperative mortality rates and other metrics to ensure safety and provide quality measures.

- ▣ Providing a financial safety net to ensure that families are not bankrupt by a necessary surgical intervention.

The World Health Assembly (WHA), an annual meeting of the United Nations and World Health Organization (WHO), sets health priorities for all member countries of the WHO through resolutions put forth and voted on by the WHO Executive Board and the member country ministries of health. Resolutions on safe surgery and anesthesia have been considered in years past, but the argument this year for inclusion of essential surgery and safe anesthesia within the resolution on Universal Health Coverage proved successful. This resolution, supported by ASA, is a first step toward increased funding for and access to surgery and safe anesthesia in low- and middle-income countries.

Drs. J.P. Abenstein and Kelly McQueen were part of the World Federation of Societies of Anaesthesiologists (WFSA) delegation to the WHA. In addition, they represented ASA and the ASA’s Committee on Global Humanitarian Outreach, vigorously supported the adoption of resolution A68/15, and witnessed this historic and successful process. ASA’s support of the global surgical agenda and global patient safety has never been stronger, and ASA will actively participate in this era of global surgery, 2015-30.

## References:

1. Debas HT, Donkor P, Gawande A, Jamison DT, Kruk ME, Mock CN, eds. *Essential Surgery*. Washington, DC: World Bank Group; 2015. Jamison DT, Nugent R, Gelband H, Horton S, Jha P, Laxminarayan R, eds. *Disease Control Priorities; vol 1*. 3rd ed.
2. Lancet Commission on Global Surgery. *Lancet*. April 27, 2015; 385(special issue):S1-S57.
3. Sixty-Eighth World Health Assembly. Strengthening Emergency and Essential Surgical Care and Anaesthesia as a Component of Universal Health Coverage: WHA68.15. Geneva: World Health Organization; May 26, 2015. <http://www.who.int/surgery/en/>. Accessed July 23, 2015.

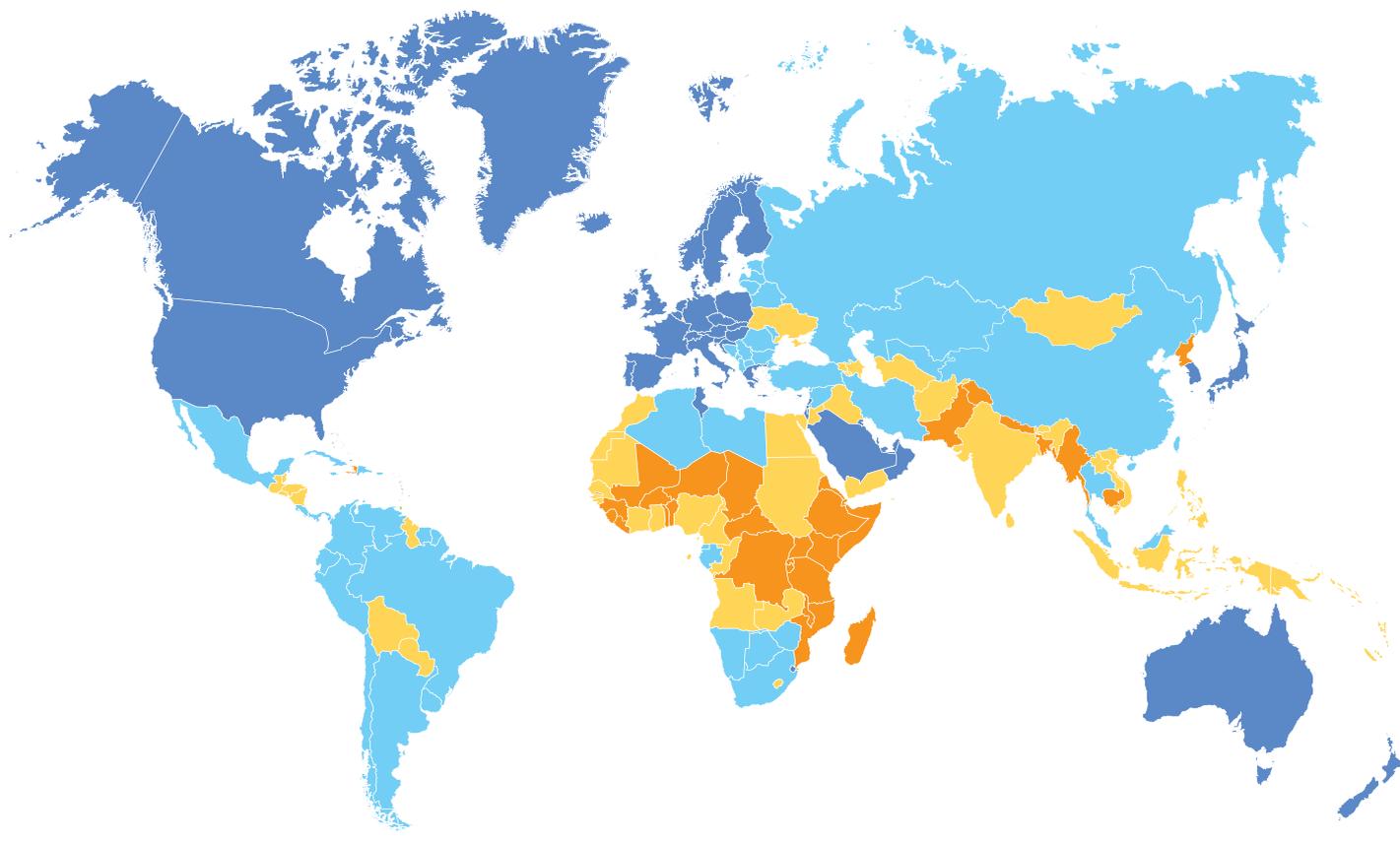


J.P. Abenstein, M.S.E.E., M.D. is a consultant, Division of Cardiovascular and Thoracic Anesthesiology, and Associate Professor of Anesthesiology, Mayo College of Medicine, Rochester, Minnesota.



K.A. Kelly McQueen, M.D., M.P.H. is Associate Professor, Department of Anesthesiology and Director of Vanderbilt Anesthesia Global Health and Development, Affiliate Faculty, Vanderbilt Institute for Global Health, Vanderbilt University, Nashville.

# THE GLOBAL ANESTHESIA CRISIS



- Countries with **adequate anesthesia capacity** and excellent patient safety.
- Countries with **improving anesthesia capacity** and patient safety.
- Countries **in need of improved anesthesia infrastructure** and patient safety.
- Countries **suffering an anesthesia crisis** – few providers, limited training and education, poor patient safety and anesthesia outcomes.

## KEY MESSAGES:

- Full provision of essential surgical procedures would avert about 1.5 million deaths a year or about 6-7% of all avertable deaths in low- and middle-income countries.
- Essential surgical procedures rank among the most cost-effective of all health interventions. Twenty eight of the 44 essential procedures would typically be delivered by the surgical platform of the first-level (or district) hospital, making investment in this platform also highly cost-effective.
- Effective and affordable measures (such as task sharing) have been shown to increase access to surgical care while much needed investments are being made to expand capacity. As emergency procedures constitute 23 of the 28 provided on the district hospital surgical platform (and 6 of the 10 provided at the community health center level), such facilities must be widely geographically diffused.
- There are substantial disparities between countries at different economic levels in the safety of surgical care (e.g., in perioperative mortality rates and anesthesia-related deaths). The mortality rate from cesarean sections, for example, varies across countries by a factor of 80 to 1 or more. Feasible and affordable measures (such as the Surgical Safety Checklist) have been shown to improve safety and quality.
- Universal coverage of essential surgery (UCES) should be publicly financed early on the path to universal health coverage, given that it is affordable and highly cost effective, there is major public demand for surgical services, and these services can reduce the burden of disease. We estimate that implementation of UCES would require about \$3 billion per year of annual spending over current levels and would have a benefit to cost ratio of over 10 to 1.