

## Original Investigation

# Self-reported Determinants of Access to Surgical Care in 3 Developing Countries

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**IMPORTANCE** Surgical care is recognized as a growing component of global public health.

**OBJECTIVE** To assess self-reported barriers to access of surgical care in Sierra Leone, Rwanda, and Nepal using the validated Surgeons OverSeas Assessment of Surgical Need tool.

**DESIGN, SETTING, AND PARTICIPANTS** Data for this cross-sectional, cluster-based population survey were collected from households in Rwanda (October 2011), Sierra Leone (January 2012), and Nepal (May and June 2014) using the Surgeons OverSeas Assessment of Surgical Need tool.

**MAIN OUTCOMES AND MEASURES** Basic demographic information, cost and mode of transportation to health care facilities, and barriers to access to surgical care of persons dying within the past year were analyzed.

**RESULTS** A total of 4822 households were surveyed in Nepal, Rwanda, and Sierra Leone. Primary health care facilities were commonly reached rapidly by foot (>70%), transportation to secondary facilities differed by country, and public transportation was ubiquitously required for access to a tertiary care facility (46%-82% of respondents). Reasons for not seeking surgical care when needed included no money for health care (Sierra Leone: n = 103; 55%), a person dying before health care could be arranged (all countries: 32%-43%), no health care facility available (Nepal: n = 11; 42%), and a lack of trust in health care (Rwanda: n = 6; 26%).

**CONCLUSIONS AND RELEVANCE** Self-reported determinants of access to surgical care vary widely among Sierra Leone, Rwanda, and Nepal, although commonalities exist. Understanding the epidemiology of barriers to surgical care is essential to effectively provide surgical service as a public health commodity in developing countries.

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Surgical care is increasingly recognized as an integral component of any functional public health system in the developing world; however, until recently, programs designed to provide surgical care as a public health commodity have not been as robust as similar pediatric or medical programs.<sup>1</sup> Improved access to surgical service has the potential to bolster public health by decreasing morbidity and mortality from traumatic injuries, fetal and maternal conditions, cancer, and abdominal and extra-abdominal conditions.<sup>2,3</sup> The burden of these surgically treated diseases can be substantial, contributing at least 7% to 18% of the total nonavertable burden of disease in developing countries.<sup>4</sup> The Surgeons OverSeas Assessment of Surgical Need (SOSAS) tool is a validated population-based household survey that was de-

signed to assess the prevalence of surgically treatable conditions in developing countries and identify deaths potentially preventable with surgical care. Additionally, respondents provided information about barriers to accessing surgical care.<sup>5-7</sup> Public health programs intending to ensure adequate provision of surgical care must be founded on solid public health principles, understanding both the surgical burden of disease and the existing barriers to accessing care. While the burden of surgical disease in developing countries is increasingly described, barriers to accessing surgical care remain ill-defined.<sup>8</sup> To improve understanding of existing barriers to surgical care, data from 3 cross-sectional, cluster-based population SOSAS surveys in Nepal, Rwanda, and Sierra Leone were evaluated.