Surgery has been called the “neglected stepchild” of African health systems, considered an unaffordable, urban luxury. At the district level, the picture is particularly bleak. Without the necessary infrastructure, supplies or staff to conduct surgery, patients with surgically-treatable conditions often cannot access life-saving procedures, turning otherwise manageable pathologies into potentially lethal conditions. Delays, referrals to far-off facilities, and overloaded rural hospitals all contribute to the grim statistics: obstructed labour accounts for nearly 10% of maternal deaths, with injuries – from road traffic accidents and other traumas – leading to more deaths in children over five than HIV, tuberculosis and malaria combined. In Malawi, there are only 15 trained surgeons of any specialty for a population of 12 million, with none based at the district level.¹

The severe shortage of surgeons at the district level means that most surgical care is performed by general-practice doctors or by mid-level health professionals such as assistant medical officers (AMOs). However, rather than illustrating the failure of the system, this emerging task-shifting response of many African health systems – putting surgery in the hands of trained non-surgeons – can be a sustainable, robust and inventive way of strengthening the entire health system. Across the continent, evidence and experience reveal a range of effective approaches in providing basic surgical services at the district level.

In Mozambique, a two-year surgical course for assistant medical officers at the district level (“technicos de cirurgia”) sees 10-25 surgery AMOs graduating every year. Evidence from this program shows low rates of surgical complications, long-term retention of AMOs in rural areas, and a compelling cost-effectiveness. The technicos program has in many ways become the backbone of the Mozambican health system. Several countries, including Niger, have created basic facilities to provide surgical care at the district-hospital level, while also providing intensive training for doctors. In 2006, there was a corresponding 52% drop in the number of transfers for surgical causes from district to referral hospitals. In Tanzania, a demonstration model of a district hospital surgery system has opened windows into the human resource contraints, and helped to refine general strategies to attract and retain doctors, nurses, anaesthetic AMOs/nurses and other support staff.

Surgery must be seen as part of a health system and not merely a technical profession. Systemic approaches to surgery – people-focused, integrated, decentralized and flexible – can raise the overall quality and capacity of health care and create an invaluable “ripple effect” of encouraging patients to seek attention for nonsurgical conditions.² To improve access to emergency and general surgical care in the rural African setting, the BESG suggests that systems of surgical care be strengthened as essential components of comprehensive district health care systems and not as vertical programs. The requires that first-line health services (diagnosis,
injury prevention) are improved; access to district-level hospitals is increased; and that tertiary hospitals serve a strong supportive function.

The Bellagio Essential Surgery Group

In collaboration with the WHO's Global Initiative for Emergency Surgical Care (GIEESC), the Bellagio Essential Surgery Group (BESG) calls for national and international commitment to improve access to essential surgical services. The BESG is a forum of top surgeons and public health specialists that has met in Bellagio, Italy (2007) and Kampala, Uganda (2008). BESG members have discussed the many “alternative approaches” to improving access, and have become pre-eminent advocates of surgery's role in strengthening health systems.

While the renewed global emphasis on primary health care offers an opportunity to integrate surgical services at the district level as part of an essential health services package, the BESG also argues that the provision of accessible and high-quality surgical care can lead to improved maternal and child health outcomes (Millennium Development Goals (MDGs) 4 and 5), and reduce the spread of infectious disease (MDG 6) in ways that attention to those specific areas alone could not achieve.

The BESG is committed to assisting countries in developing realistic options and innovations, from improving the competence and motivation of doctors in district hospitals to strengthening the surgical capacities of other staff. The BESG actively encourages educational reforms (where practical surgical skills become an integral aspect of basic medical training), developing a blueprint for systems-level investments in infrastructure and equipment, and designing strategies to attract, train and retain skilled health workers. Its District Hospital Working Group is a network of advocates working to gain support for investment in surgical services and infrastructure at the district level.

There is no one solution for every country, and one size certainly does not fit all. Every country must analyze its current surgical infrastructure, needs and abilities, and discuss the mechanisms by which its health system can be improved through increasing access to surgical care. Dialogue among stakeholders from the Ministry of Health, hospitals, clinics, civil society, and various research, academic and professional bodies is crucial to achieving tailored solutions that fit locally-identified needs.

Further Resources


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