

**GLOBAL SURGERY AND PUBLIC HEALTH: A NEW PARADIGM**

By Catherine R. deVries and Raymond R. Price  
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WRITTEN AS MUCH FOR THE GENERAL PUBLIC AS FOR THE medical community, the fact-packed *Global Surgery and Public Health* by Catherine deVries and Raymond Price will benefit all physicians in the developed world, regardless of their specialty. Specifically, the discussion of economic principles with respect to the allocation of limited resources is as applicable to the developed as the developing world.

For example, consider how the process of making surgery affordable in the developing world can reduce the developed world's dependency on expensive health care technology. The authors observe that the "challenge of making surgery accessible and affordable to the majority of people is not complex or unique to the surgical industry." In most industries, complex and expensive products can evolve into simpler manufactured products through innovation, thereby making them less expensive. Such innovation, in turn, is predicated on a manufacturer's development of technology and innovative business models.

DeVries and Price did not intend this work to be a self-help book for the developed world. As the incidence of infectious diseases and diseases caused by both poor hygiene and suboptimal water quality decreases, the disability-adjusted life-years (DALY) costs of surgical diseases have increasing socioeconomic effects on developing nations. For example, developing nations pay a substantial societal cost in terms of lost productive years of labor services for easily treatable surgical diseases (such as hernias, cataracts, and obstetrically created vesicovaginal fistulas). Automobile crashes (which during the last 100 years have globally taken more lives than all of the wars and homicides during that period combined) and postpartum hemorrhage (each day, 1500 women die during childbirth, most commonly from hemorrhage) tend to impoverish developing nations that lack a surgical infrastructure.

Echoing an observation made first by Karl Marx and Friedrich Engle, *Global Surgery* observes that the volume of health care services a society consumes closely correlates with its economic resources. This is particularly true of surgery, which, as William Halsted observed, is never a stand-alone activity. DeVries and Price examine the factors a developing nation must contemplate when it commits its economic resources to minimize its DALY opportunity costs. The authors also provide case studies of how countries and

private organizations (such as Doctors Without Borders) have made inroads into the creation of surgical services in developing nations.

To the DALY opportunity costs, developing nations must add "brain-drain" costs to obtain a total societal cost for operating a suboptimal health care system. Caregivers migrate from developing to developed nations for a variety of reasons, but the brain-drain costs to developing nations are staggering. For example, the brain drain to the United States alone represents a transfer of \$26 billion in education costs from the developing world to the United States. To avoid further brain-drain costs, DeVries and Price urge the developing world to invest in training individuals who will perform only specific tasks—hernia repairs, for example. After all, the developing world has less need for highly trained specialists such as cardiovascular surgeons.

deVries and Price admonish the reader that the solutions to implementing a surgical delivery system in the developing world should not be predicated on a reengineering of expensive models from the developed world. For the 1.6 billion people without electricity, the developed world's concepts of surgery are impractical. The authors of *Global Surgery* point out that a developing nation's first step toward providing surgical services should be to survey needs in its own health care landscape as well as its own economic capabilities. To maximize returns on investments for developing nations, the authors encourage such nations to avoid assistance from "external funding agencies [that] push disease-specific agendas or [collect] data that drive local clinics to specialize in the funder's illness interest." Because a one-size-fits-all solution to the creation of a surgical infrastructure is not reasonable, each developing nation must find its own way.

In short, "no person or institution has all the tools necessary to solve the world's limited access to surgical care." But for readers interested in the plight of the less fortunate, *Global Surgery and Public Health* is a good place to start. Each chapter can be read alone, and the chapters can be read out of order. Many readers will find this type of structure desirable. However, the stand-alone nature of each chapter means that many of the concepts are discussed more than once.

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