

CHAPTER 21

INTERNATIONAL PLASTIC SURGERY

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I. INTRODUCTION

- A. Plastic surgery is a surgical specialty with global roots. Records dating back to 800BC in ancient India are the earliest known records of surgical rhinoplasty based on the works of Sushruta, an ayurvedic physician.
- B. However, clinical and technological advancements in the past century have not benefited patients in the developing and developed world equally.

II. GLOBAL PRACTICE IN PLASTIC SURGERY

- A. Plastic surgery practice in the low and middle income countries (LMIC) focuses largely of chronic wound care, burn care and congenital face and hand deformity reconstruction.
- B. There is a lack of access to reconstructive surgery in many parts of the world, especially in children, due to factors ranging from poverty to lack of surgical manpower.

III. INTERNATIONAL PLASTIC SURGERY OUTREACH

- A. Plastic surgeons in the United States have sought to bridge this divide by organizing surgical missions to LMICs and providing free surgical care.
- B. Plastic surgical charities/NGOs such as Operation Smile, Smile Train, Resurge International (formerly Interplast), Rotaplast and Facing The World spearhead these efforts.
- C. Smaller groups of surgeons or individual have also organized short trips to resource-poor countries
- D. Surgical missions provide numerous benefits to patients who are otherwise unable to access surgical care.
 - 1. They can provide resources and improve manpower and training for local partners.
 - 2. They improve cost-conscious practice, cultural and clinical skills in volunteers.
 - 3. Concerns exist about the standards of practice, cultural shock and ethics of surgical care delivery.
- E. Three common principles described by Garfein et. al. when delivering care in developing countries include
 - 1. Build and support local infrastructure
 - 2. Create long-term, self-sufficient care
 - 3. Adhere to the highest standards.

4. Patel et al have described a diagonal approach to surgical care delivery that takes all these factors into consideration (Figure 1).

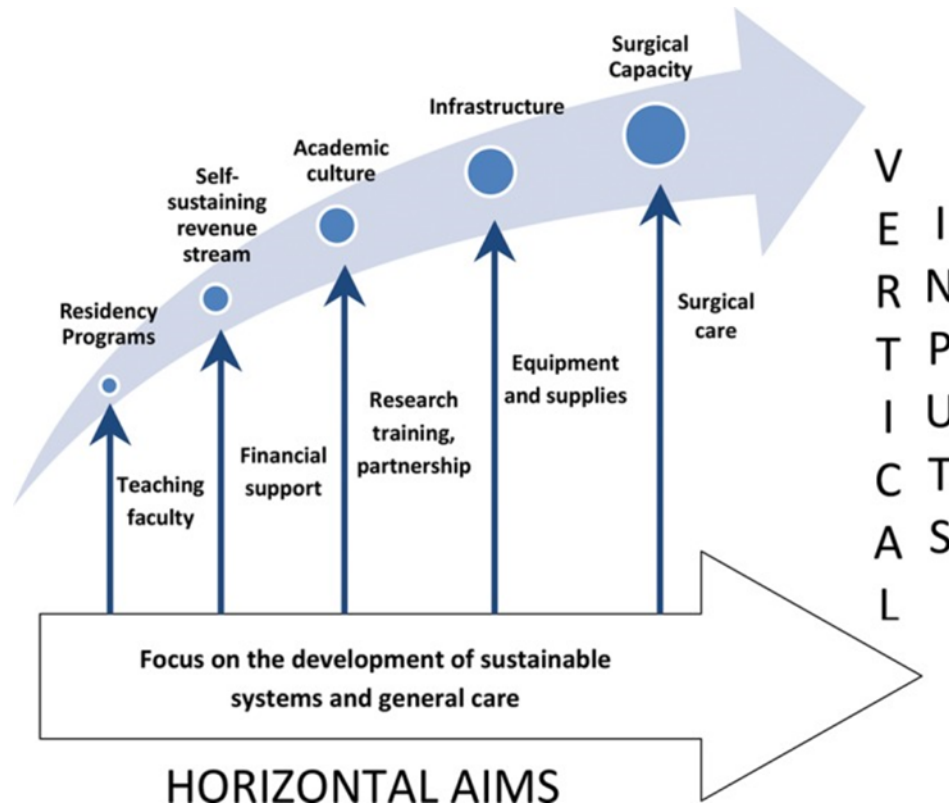


Figure 1. The diagonal approach to international surgical outreach.
 From Patel, et al. *An opportunity for diagonal development in global surgery: cleft lip and palate care in resource-limited settings. Plast Surg Int* 2012.

IV. EDUCATION

- A. Plastic surgical trainees also participate in surgical missions and several residency programs have obtained approval from the Residency Review Committee of the ACGME to include global health or international rotations to LMICs as part of surgical training.
- B. Such rotations benefit residents by exposing them to different pathologies and innovative operative and treatment approaches.
- C. Global surgery fellowships focused on plastic surgery also provide post-residency clinical and research training for advanced trainees with a career interest in global surgery (Table 1).

Plastic Surgery Focus in Global Surgery		
Fellowship (Web Site)	Organization	Key Points
Regan Fellowship http://bit.ly/2g6IN4g ⁴⁹	Operation Smile	The Regan Fellowship offers resident physicians the opportunity to participate in the life-changing work of Operation Smile. Made possible by invaluable donor support, residents in plastic surgery, pediatrics, and anesthesiology are invited to attend an international medical mission and work under the supervision and mentorship of veteran Operation Smile physicians. While on the medical mission, residents also participate in our research initiatives that will allow for better treatment and prevention of cleft lip and cleft palate. During this program, residents may network with one another and share their experiences at the annual conference of Regan Fellows.
Stryker International Fellows Program http://bit.ly/2g6IN4g ⁵⁰	Operation Smile	The Stryker International Fellows Program seeks to build a global team of international rising plastic surgeons who have had a unique exposure to the humanitarian programs of Operation Smile and to the surgical management of cleft lip and cleft palate.
Tsao Global Surgery Fellow http://bit.ly/2g5w0Rw ⁵¹	Children's Hospital Los Angeles, Operation Smile, and the USC Institute of Global Health	Organized by Children's Hospital Los Angeles, Operation Smile, and the USC Institute for Global Health. The program's fellows develop academic, clinical, and administrative skills in global surgery, clinical and public health research, and humanitarian aid in resource-poor settings. In addition to gaining master's degrees in clinical and biomedical investigations, they conduct research and travel around the world to where Operation Smile carries out surgical care missions.
Sterling-Bunnell Fellowship http://www.aassh.org/afsh/Grants-Awards-and-Programs/Education/Bunnell-Fellowship-Program ⁵²	American Society for Surgery of the Hand	American Society for Surgery of the Hand for a young hand surgeon to foster national and international relationships.
Jerome P Webster Fellowship http://bit.ly/2gnMwLK ⁵³	ReSurge International	The Webster Fellowship offers a newly trained, board-eligible plastic surgeon the opportunity to spend a year with Interplast's medical colleagues in developing countries such as Bangladesh, Bolivia, Brazil, China, Ecuador, Ghana, Myanmar, Nepal, Nicaragua, Peru, Sri Lanka, Vietnam, and Zambia—performing the highest form of medical citizenship through care of those in need.
The John D. Constable International Traveling Fellowship http://bit.ly/2l7X6ES ⁵⁴	American Association of Plastic Surgeons	The John D. Constable International Traveling Fellowship has been an integral part of the American Association of Plastic Surgeons since 2006 and has provided an opportunity for international plastic surgeons to work with leaders in American plastic surgery.

Table 1. Global Surgery Fellowship List
From Chung K. Plastic and Reconstructive Surgery in Global Health: Let's Reconstruct Global Surgery. PRS Go 2017;5(4):e1273.

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3. Hughes CD, Alkire B, Martin C, et al. American plastic surgery and global health: a brief history. *Ann Plast Surg.* 2012 Feb;68(2):222-5.
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