



Partnerships for developing pediatric surgical care in low-income countries

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If attendance at a session speaks to the relevance of a topic, then “pediatric surgery in low-income countries: international partnerships” was an important subject for many who attended the 41st annual meeting of the Pacific Association of Pediatric Surgeons. Included on the program were 4 invited speakers who described their experience with different types of international partnerships for addressing the global burden of pediatric surgical disease.

Stephen Bickler of the University of California, San Diego, Calif, opened the session by describing recent international initiatives for improving surgical care in low and middle-income countries. The driving force for these initiatives has been increasing recognition that surgical diseases are an important public health problem. He described work underway to measure the global burden of surgical disease and its relevance in disability adjusted life years lost. He traced the evolution in the assessment of global surgical needs and the impact this work has had on health policy. Important milestones in this research have included (1) cost-effective analysis studies in 2003 demonstrating that basic surgical interventions are similar in expense to other public health interventions (eg, immunizations) [1,2], (2) the World Bank’s 2006 Disease Control Priorities Project that included surgical care as an important public health intervention [3], and (3) the 2008 Global Burden of Surgical Disease Working Group [4]. Worldwide, an estimated 234 million major

surgical procedures are performed annually [5], more than double the number of births and 7 times the number of individuals infected with human immunodeficiency virus. The disparity in surgical care is brought to light when we realize that the wealthiest third of the world’s population benefits from 74% of surgical interventions, whereas the poorest third receives only 3.5%.

The partnerships described by Dr Bickler involving international organizations were the most global and furthest reaching. He highlighted World Health Organization initiatives such as the Global Initiatives for Emergency and Essential Surgical Care [6] and the World Alliance for Patient Safety [7]. He advocated for a global pediatric surgical research agenda similar to what has been outlined for surgical care in general [8] and stressed the need for pediatric surgeons to be involved in international initiatives to ensure the interests of children are properly represented.

Diana Farmer of the University of California, San Francisco (UCSF) (San Francisco, Calif) discussed her experience with the evolution of an interdepartmental partnership between the Department of Surgery at UCSF and the Department of Surgery at Makerere University, Kampala, Uganda [9]. What existed as an informal relationship between 1998 and 2002 has since been formalized and given structure. Since 2003, 10 residents and 12 faculty members from UCSF have done rotations in Kampala and one Ugandan surgeon has visited San Francisco. Of the 10 UCSF residents, 4 have contributed to mentored research projects, 3 have completed a formal global health clinical scholars program, and 3 have obtained a master’s degree in public health. One of the UCSF faculty members was based in Kampala for a year and assumed clinical and research responsibilities.

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Dr Farmer and her group have demonstrated that a global health program can be successfully established as part of a residency training program. The partnership has taken into account ethical considerations such as resident supervision and patient protection. In the true spirit of collaboration, both partner institutions and the individuals involved stand to benefit immensely, and in so doing, patients benefit.

Spencer Beasley of the University of Otago, Christchurch, New Zealand, discussed the clinical outreach program they have established on the country's South Island as well as their involvement in developing pediatric surgical services in the South Pacific to reduce reliance on external aid programs.

The comprehensive outreach program to the rural areas of the South Island, that until 1996 had limited access to specialist pediatric surgical expertise, was based on a cooperative partnership with provincial pediatricians and general surgeons. Regular clinics and day surgical operating sessions were conducted according to need. Review of the service suggests that the greatest contribution to improving outcome may be for common conditions such as hernia and undescended testis. Equity of access to specialist opinion and provision of clinical services with minimal disruption to families are cornerstones of the service. It is likely that in many so-called developed countries there is ongoing poor availability to quality pediatric surgical care, which makes partnerships with these regions crucial if all children are to have access to and benefit from the same level of care.

The Pacific Islands program is more complex and illustrates the importance of partnerships that function simultaneously at multiple levels. At a "grass roots" level, two of the Christchurch-based pediatric surgeons have significant ties and commitment to the South Pacific—this lends greater credibility to the program. The multilayered partnership involves a meshwork of relationships between individuals, departments, institutions, and governmental ministries. Each has a part to play in the overall success of the program. Although some activities have had short-term goals, the long-term goals have been to assist these countries to become increasingly self-reliant. The greatest impact has not been from visiting teams of specialists (although their contribution to improving the quality of life for individuals cannot be underestimated) but rather from an extended period of collaboration to develop and consolidate infrastructure and to facilitate the training of talented local people. Only by developing a locally controlled viable service can a high and consistent level of care be sustained. In Fiji, early identification of a pediatric surgical trainee and support from several New Zealand and Australian hospitals, as well as the Royal Australasian College of Surgeons, has led to the country's first specialist pediatric surgeon. The partnership already established will ensure he has adequate support as he further develops services in the region.

Finally, Georges Azzie discussed the ongoing collaboration between the Hospital for Sick Children, the Department of Surgery, University of Toronto (Toronto, Ontario, Canada) and the 2 major tertiary care centers in Botswana: Princess

Marina Hospital in Gaborone and Nyangabwe Hospital in Francistown. Overall, the social, political, and economic demographics in Botswana are unique for Africa and enhance the likelihood of productive collaborations. All projects were based on needs assessments, and only those likely to succeed were undertaken.

Since 2005, a program targeting babies with anorectal malformations has been established. Local pediatricians and surgeons were and continue to be involved. Educational programs for interns, medical officers, and specialists have been established. Posttraining surveys were administered after two of the programs and showed a high level of satisfaction among doctors involved. "Telesimulation," a novel modality in training, was used to teach the fundamentals of laparoscopic surgery course as well as intraosseous resuscitation. In all programs, plans were implemented, targets were established, and exit strategies were put into place.

At the close of the 2-hour session, there were many questions and comments. Are partnerships the solution to improving pediatric surgical care in low-income countries? Clearly, there is no simple solution. However, partnerships seem to be a thoughtful first step. As to the role we as pediatric surgeons can play in such partnerships, Dr Farmer's closing remarks ring true: "Because we are drawn together by the common bond of caring for the world's neediest and most vulnerable people, children with disability and disease, pediatric surgeons are uniquely positioned to take up leadership roles in addressing the global burden of disease. We need to do so together, with sensitivity and awareness of the cultural differences that make each of our practices around the world unique."

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