Balance of Trade: Export-Import in Family Medicine

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North American family physicians leaving for less-developed countries (LDCs) may not be aware of internationally validated diagnostic and treatment technologies originating in LDCs. Thus they may bring with them inappropriate models and methods of medical care. More useful “exports” are based in sharing our collaborative vocational perspective with dedicated indigenous generalist clinicians who serve their communities. More specifically, Western doctors abroad can promote local reanalyses of international evidence-based medicine (EBM) studies, efficient deployment of scarce clinical resources, and a family medicine/generalist career ladder, ultimately reversing the “brain drain” from LDCs. Balancing these exports, we should import the growing number of EBM best practices originated in World Health Organization and other LDCs research that are applicable in developed nations. Many generalist colleagues, expatriate and indigenous, with long-term LDC experience stand ready to help us import these practices and perspectives.

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“You are the first American doctor who doesn’t seem like an American doctor to me.” Dr C, a Kenyan intern at a large rural hospital significantly supported and medically staffed by expatriate volunteers, made this observation as we conversed late into his post-call night. A stellar graduate of Moi University Medical School in western Kenya, Dr C felt fortunate to be training at this established, respected hospital, soon to become a base hospital for the first family medicine residency in Kenya. Learning the context for this new venture in late 2003, I visited the four hospitals that would participate in the residency program, and during those visits I held informal evening focus groups with the interns.

Since Dr C’s current rotation was obstetrics, discussion drifted to the teaching style of the short-term American volunteer family physician on that ward. “He loves to teach. He trusts me and wants to learn about my West Kenya customs, and…”

“And what is he teaching you?” I asked.

“He has a good systematic approach, based on how he trained—at one of the best American residencies. He reads many North American journals, and gives me articles to read. We discuss them on rounds.”

“What points do you bring up on teaching rounds?” I asked.

“Sometimes I relate the articles to the clinical approaches I learned at Moi. But he does not seem informed, or even very curious, about what I learned there. And he hadn’t heard of the World Health Organization’s Integrated Management of Pregnancy and Childbirth (IMPAC) manual,1 which Moi obstetrics faculty use as one of our textbooks. So, mostly, I keep quiet. I fit my work to what he teaches.”

In 2004–2005, I returned for a subsequent visit to Kenya to help Moi University, Institute for Family Medicine, a Kenya-based nongovernmental organization (NGO), and Kenya’s Ministry of Health as they were about to launch Moi’s first three residencies—medicine, pediatrics, and family medicine.2 Because our family medicine faculty and registrars (residents) knew the diagnostic approaches used in Integrated Management of Childhood Illness (IMCI) textbooks,3 produced by the World Health Organization (WHO), it was natural to manage sick children on the evidence base4 of IMCI. Realizing that clinicians can reliably diagnose pneumonia and assess its severity in children without radiographs or stethoscopes was not news to these residents—though the evidence4,5 was. IMCI is the basic approach taught by the Kenyan

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What Should Family Medicine Export?

Episodes such as these compel clinician-educators to examine our “exports.” Certainly our family medicine “export product line” should not center on technology, though we must foster appropriate technology in the West as well as in LDCs. Neither should the curriculum focus around the chronic disease model nor any new model of family medicine—even though chronic diseases are increasing in LDCs and the need for health system reform is as great there as the United States, though systemic issues differ. We should not export any particular model of family medicine.

First and foremost, family medicine should export the perspective and vocation—the vision and calling—of the generalist. Family doctors are heirs to the great generalist tradition—an outlook that spans yet goes beyond clinical practice. However, we neither invent nor bring this ethos to other countries’ clinicians. It is already there, personified by generalists living and serving in their communities. With these host colleagues as brokers, family medicine must serve extended families, especially the mothers giving birth and their children under 15, who make up two thirds of the population of most LDCs. No other single specialty need be as clinically adept with this mother-child dyad in the family/community context.

Second, as professionals anywhere in the world, we need to be skilled, steady, and spiritual. We must be skilled in clinic and community, steady and reliable in our roles, and ultimately spiritual in our values and vocation. Third, that vocation must be a calling that comes from beyond ourselves, sustaining us in the backwaters of greatest need.

This combination of qualities is not common—but it is at least as prevalent among our international general practice colleagues as it is here at home.

Can We Measure Our Exports?

The crucial qualities listed above are intangible. What might be some of the more measurable outcomes of international professional collaboration?

First, clinical decision making under resource constraints should be based on hardheaded application of evidence in the many different “real worlds” of diverse LDCs. Too often, clinical practice in LDCs is driven by emulation of Western technology or by authoritarian, arbitrary local clinical custom. Freedom from both comes from fresh analyses of existing evidence, using local parameters. Relating the international Term Breech Trial to the family physician in Kenyan district hospitals, our family medicine faculty reanalyzed the study’s raw outcomes in light of various East African scenarios, concluding that the number needed to treat (NNT) could exceed 500 (personal communication, Scott Shannon, MD, 2005). The most experienced family medicine resident, Dr T, was so impressed that he exclaimed, “Family medicine will set us free!”—i.e., free to use evidence rather than authority to make these decisions in and for Kenya. “Should we do 500 C-sections to produce one better outcome in Kenyan breech presentations?”

Dr T’s colleagues are learning that Africa is not the only continent questioning this and related practices based on conclusions drawn in developed nations, where abundant resources encourage intervention even when the NNT is extremely high. Fortunately, international partnerships have arisen to look at evidence-based medicine (EBM) in the context of overall effectiveness in LDC settings, where both health problem prevalences and resources may be exponentially different, often in the opposite directions, from Western populations in which EBM studies usually arise. Because the “twin transitions”—demographic and epidemiological—are proceeding at varying rates in these diverse LDCs, repeat analyses utilizing these changing parameters will lead to ever-evolving regional best practices.

Second, family medicine is the best-placed clinical cadre for improving health systems in LDCs at community, national, and international levels. But these reforms will be sustainable only in collaboration with citizens–professionals at each level. For individual family doctors anywhere on the globe, this influence comes through synergizing four roles: leader, teacher, lifelong learner, and clinician.

Third, North American family doctors and academics can help alleviate clinician shortages in LDCs, especially in Africa, where AIDS devastates health service delivery. A dearth of skilled clinicians limits scaling up anti-retrovirals—and restoring good general health care. If North American doctors, including family physicians, are to deploy as clinician-advisers caring for African AIDS patients, as proposed in an Institute of Medicine report, they will also need to be versed in a myriad of primary care problems—not just HIV/AIDS. Family doctors experienced in applying LDC/WHO primary care protocols could become ideal faculty, orienting these American healers abroad, thus exporting international family medicine by proxy.

Fourth, and most importantly, by developing the first generation of indigenous family doctors in many such nations, family medicine educators can help legitimize this specialty locally and create career ladders. Brought
to scale in Africa and other continents, family medicine could help reverse the brain drain of LDC doctors emigrating to the West for residency training or career fulfillment.\textsuperscript{15}

What Should We Import?

At the moment, our major clinical import from LDCs is clinicians themselves.\textsuperscript{15} If NGOs work with the governments and medical schools of LDCs, this counterproductive brain drain could be ameliorated. Instead of their clinicians, we should import from LDCs their cost-conscious perspectives and internationally validated best practice evidence.\textsuperscript{5,16} Among the better examples of this “reverse technology flow” is oral rehydration therapy (ORT) for diarrhea, originated in Bangladesh by Santosham and colleagues facing cholera.\textsuperscript{16} Despite this evidence from Dacca, it was only after repeating these clinical trials in the United States among Apache children and publishing results in the New England Journal of Medicine\textsuperscript{17} that American clinicians 2 decades later gradually adapted ORT as a best practice. Parallel to ORT, but further from general North American assimilation, is EBM diagnosis of infants’ pneumonia,\textsuperscript{3} relying on the same data, largely from LDC clinical trials, underlying IMCI.\textsuperscript{3}

We should import the quiet but confident audacity of Dr T and the “freedom of family medicine” to use EBM to analyze NNT and patient outcomes in context. To a large extent this is happening in North America with patient-oriented evidence that matters (POEMs) being published serially in North American family medicine journals. In devising appropriate North American clinical priorities, we should applaud family physicians’ analyses.\textsuperscript{18}

Closely related, though geographically removed, are the perspectives on American medical culture from outside by American doctors who have invested their entire clinical careers in perceptive service-learning in obscure LDC settings.\textsuperscript{19} Thus enriched by these experiences, guest American doctors abroad perhaps will not each “seem to be an American doctor” but will be as diverse and broadly informed as their hosts, and we family doctors will come to realize that what we import is at least as valuable as anything we export.

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11. Effective Health Care Alliance Program (EHCAP). Based in Liverpool, UK, with contributions by EHCAP-Nigeria (www.ehcapng.org), NHRC (Ghana), Cochrane Centre (South Africa), AMRN (Tanzania), and sites in Asia, Chile, the Caribbean, and also by the World Health Organization.


