Not just more global health—smarter global health

The recently published commentary on global health curriculum in family medicine training is a welcome start in a dialogue on this critical issue facing the Canadian physician community.[1] While it provides a good overview of the potential benefits and the elements by which global health training could be improved in Canada, it stops just short of exploring the deeper issues surrounding greater participation in global health educational experiences.

The biggest issue in the analysis is the expansion of the definition of *global health* to include domestic opportunities with underserved populations as well as opportunities abroad. While correctly citing the 2009 definition of global health by Koplan et al,[2] the addition of "advocating and providing care for underserved populations within Canada, such as the homeless, refugees and immigrants, and remote communities"[1] arguably falls within the traditional role of the family physician as advocate[3] as well as the specialty of public health and preventive medicine.

The pursuit of domestic educational experiences with marginalized groups in Canada differs greatly from an experience in a foreign country. There is a relative amount of ease and clarity surrounding the former over the latter, specifically regarding curriculum development, establishment of formal training programs, the population served, the priorities and responsibilities of physicians in those settings, and ethical considerations. The commentary itself gives brief notice to domestic issues before plunging heavily into overseas-focused predeparture training, centralized global health offices, and mentorship documents from programs focused on lower- and middle-income countries.

Therefore, using a common definition of global health experiences as efforts made abroad, we wish to expand on some of the commentary's themes surrounding global health curriculum development.

First, the deep interest held by junior doctors and trainees is not new. In fact, beyond single experiences, studies have demonstrated that trainees completing clinical placements abroad remain interested in incorporating such opportunities into their future careers.[4,5] However, young physicians face substantial barriers both in pursuing initial experiences in the field, and in incorporating such interests into their careers. These include financial obligations, time demands, scheduling conflicts, poorly publicized opportunities, family commitments, security concerns, and additional training requirements.[6-8]

Any development of formal programs would need to address these issues to ensure trainee experiences are both viable and valuable. Furthermore, recognizing the benefits provided by global health–minded physicians, the family physician community should make use of this passion and ensure resident experiences are not one-off "clinical vacations"; formal programs could provide opportunities and mitigate barriers for junior doctors wishing to incorporate global health into their careers.

Second, with the mitigation of barriers, we must carefully examine the ethical considerations of short-term elective training overseas. While the recent commentary highlights the clear benefits of participation accorded to the trainee,[1] the benefits derived from such experiences by the host community abroad are less clear. Beyond the obvious issues of resource scarcity, cultural and language barriers, and need for local knowledge and skill sets, literature highlights the power imbalance that exists between visiting trainees and destitute populations abroad. Such imbalances expose local patients to potential exploitation, and might also interrupt the efforts of these communities to develop local, self-sustained health care capacity.[9]

Studies examining the expansion of the United Kingdom's role in global health highlight the importance of ensuring that trainee experiences abroad fit with the country's needs and plans and, more important, that pre-existing inequities are not exacerbated through the misguided application of financial, human, or material resources for the sake of the trainee.[10,11] In the same way, the family medicine community should stand vigilant in ensuring that benefits derived from such experiences are not solely in our favour.

Finally, returning to the definitional issue described earlier, we must carefully consider the community at home and family medicine's relation to public health. Given the myriad ways Canadians support medical training, the question remains: do Canadian resident physicians have a duty to serve the Canadian public first and foremost in their practice of medicine? Many Canadians argue correctly that we have our own problems here at home; the most marginalized populations in our nation likely face more challenges than the middle-class citizens of many developing nations. Any response to this

The top 5 articles read online at cfp.ca

1. **Clinical Review:** Zopiclone. *Is it a pharmacologic agent for abuse?* (December 2007)
2. **Motherisk Update:** Exposure to fifth disease in pregnancy (December 2009)
3. **Motherisk Update:** Safety of antihistamines during pregnancy and lactation (May 2010)
4. **Clinical Review:** Treatment and prevention of herpes labialis (December 2008)
5. **Case Report:** Chronic vulvar irritation: could toilet paper be the culprit? (April 2010)

question would cite respect for career autonomy, which itself has given rise to physician distribution issues in Canada, notably the urban-rural divide.[12]

Specific to global health, however, the question of "best fit" of practice objectives is even starker. An experience in maternal child health in an indigent developing world community develops a vastly different skill set from a rotation in harm reduction at a downtown addiction clinic in Toronto, Ont. Importantly, the latter experience speaks less to global health and more to the specialty of public health in Canada, highlighting the need for strong advocacy partnerships between family medicine training programs and public health physicians and agencies.

Our group shares the authors' enthusiasm for the development and promotion of global health as a key component of residency training in family medicine. This article is another siren's call to harness the idealism that exists among trainees and young doctors. Far more critical, however, is a realistic approach to the development of appropriate, mutually beneficial, and sustainable opportunities that are accessible to trainees and junior doctors. As U2's front man Bono once said, "the world needs more Canada."[13] When it comes to global health, however, we need to be clear about what we mean, where we plan to do it, and the most ethical and equitable way to carry it out.

—Lawrence C. Loh MD MPH CCFP
Toronto, Ont
—Daniel S. Rhee MD MPH
Ann Arbor, Mich
—Jennifer E. Heckman MD MPH
Madison, Wis
—Sae-Rom Chae MD MPH
Chicago, Ill

Competing interests

None declared

References

1. Gupta A, Talavlikar R, Ng V, Chorny Y, Chawla A, Farrugia M, et al. Global health curriculum in family medicine. Resident perspective. *Can Fam Physician* 2012;58:143-6 (Eng), e82-6 (Fr).
2. Koplan JP, Bond TC, Merson MH, Reddy KS, Rodriguez MH, Sewankambo NK, et al. Towards a common definition of global health. *Lancet* 2009;373(9679):1993-5. Epub 2009 Jun 1.
3. Ladouceur R. Health advocate. What do we expect of family physicians? *Can Fam Physician* 2011;57:1239 (Eng), 1240 (Fr).
4. Bauer TA, Sanders J. Needs assessment of Wisconsin primary care residents and faculty regarding interest in global health training. *BMC Med Educ* 2009;9:36.
5. Drain PK, Primack A, Hunt DD, Fawzi WW, Holmes KK, Gardner P. Global health in medical education: a call for more training and opportunities. *Acad Med* 2007;82:226-30.
6. Barton A, Williams D, Beveridge M; Canadian Association of General Surgeons Committee for International Surgery. A survey of Canadian general surgery residents' interest in international surgery. *Can J Surg* 2008;51:125-9.

7. Powell AC, Casey K, Liewehr DJ, Hayanga A, James TA, Cherr GS. Results of a national survey of surgical resident interest in international experience, electives, and volunteerism. *J Am Coll Surg* 2009;208:304-12. Epub 2008 Dec 4.
8. Ramsey AH, Haq C, Gjerde CL, Rothenberg D. Career influence of an international health experience during medical school. *Fam Med* 2004;36:412-6.
9. Pinto AD, Upshur RE. Global health ethics for students. *Dev World Bioeth* 2009;9:1-10.
10. Crisp N. *Global health partnerships. The UK contribution to health in developing countries*. London, UK: Central Office of Information; 2007. Available from: **www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_065359.pdf**. Accessed 2012 Mar 6.
11. Benatar SR, Singer PA. A new look at international research ethics. *BMJ* 2000;321(7264):824-6.
12. Rourke J. Increasing the number of rural physicians. *CMAJ* 2008;178:322-5.
13. Waltman D. *Canada Liberal Party Convention-11/14/2003-Toronto, Ontario*. Webster, NY: Bono Speaks [website]; 2003. Available from: **http://bonospeaks.blogspot.com/2003_11_01_archive.html**. Accessed 2012 Mar 6.

Response

We thank Dr Loh and colleagues for their comments on our recent article.[1] We agree with many of the ideas they shared, including the need to pursue a clear definition of global health, and the need to ensure that "trainee experiences are both viable and valuable." While we agree that many of the examples we gave for providing care to marginalized communities in Canada fall into the traditional role of family physicians as advocates, we tried to highlight in our paper that global health experiences would complement resident learning within the CanMEDs education framework. The importance of the role of advocate is facilitated and reinforced in the context of global health education, and highlighted in such examples as the Queen's University global health curriculum. Before global health can be fully integrated into the family medicine curriculum, there needs to be thoughtful discussion regarding what global health constitutes, and strategies to ensure trainees have beneficial experiences while still providing benefit to the community they are serving. It is only with sound academic discussion, such as this, that we are able to find the best way to move forward.

—Victor K. Ng MSc MD CCFP
—Archna Narula (Gupta) MD CCFP
London, Ont

Competing interests
None declared

Reference

1. Gupta A, Talavlikar R, Ng V, Chorny Y, Chawla A, Farrugia M, et al. Global health curriculum in family medicine. Resident perspective. *Can Fam Physician* 2012;58:143-6 (Eng), e82-6 (Fr).

Implications of a newer Framingham model

Dr Bosomworth's integration of risk assessment and clinical practice guideline recommendations into a tool that generates patient-specific numbers needed to treat[1] has the potential to bridge an important gap in clinical decision making. The practicality is clearly appreciated, as evidenced by responses published in this journal in July 2011.[2,3] It is important to identify why, as one response noted, use of this tool might "increase ... prescription of statin drugs."[3] The Framingham general cardiovascular disease 10-year risk model (FRS-CVD), use of which was recommended in the 2009 Canadian dyslipidemia guidelines,[4] provides a risk estimate that incorporates a larger and more pathophysiologically diverse number of events. In addition to estimating the risk of "soft" and "hard" coronary artery disease (CAD) events (CAD death, myocardial infarction, coronary insufficiency, angina), it also incorporates the risk of cerebrovascular events (ischemic stroke, hemorrhagic stroke, transient ischemic attack), peripheral artery disease (intermittent claudication), and heart failure. Earlier Canadian dyslipidemia guidelines[5] advocated the use of the Framingham hard CAD 10-year risk model (FRS-CAD), which estimated only "hard" coronary events (CAD death, myocardial infarction).

For most patients, their estimated risk is greater using FRS-CVD than it is using FRS-CAD.[6] For example, in the case study that Dr Bosomworth presents, the 10-year risk using FRS-CVD is approximately 14%, while using FRS-CAD the risk estimate is 8%. In a small cohort study conducted in Ontario, the 2009 Canadian dyslipidemia guidelines' advocacy of FRS-CVD rather than FRS-CAD was shown to increase the number of patients recommended for lipid-lowering therapy by 2.3-fold.[7] In a cross-sectional analysis conducted in the United States, the use of FRS-CVD rather than FRS-CAD was shown to significantly diminish the low-risk category for both men and women.[6] If use of the FRS-CVD is adopted by upcoming US dyslipidemia guidelines, the investigators of the US analysis anticipate the effect to be profound and one that warrants "close economic and disease management evaluation."[6] In addition, because statins have not been shown to be beneficial in reducing the risk of all of the cardiovascular end points comprising the FRS-CVD risk estimate, numbers needed to treat derived from these risk estimates will for most patients inflate treatment benefit further (in addition to the extrapolation to a 10-year time period). For example, statins do not reduce the risk of hemorrhagic stroke; rather, a nonsignificant increase in risk was documented in a recent meta-analysis.[8] As it relates to clinical decision making surrounding a particular drug therapy, a risk assessment tool might be informative if it identifies a risk shown to be reduced by the intervention. In this regard, estimates of benefit extrapolated from the earlier FRS-CAD risk model would at least be more consistent with the statin evidence base in the setting of primary prevention.

—Cait O'Sullivan PharmD
Vancouver, BC

Competing interests
None declared