McMaster University Internal Medicine International Health Elective: A Survey-Based Study to Understand Achievements and Lessons Learned

Andrew W. Duncan MD, Musa Waiswa MBChB MMed (Int Med), Ally P.H. Prebtani BScPhm MD, Madeleine M. Verhovsek MD, Tim M. O'Shea MD MPH

About the Authors

Andrew Duncan (left) is a PGY-4 fellow of general internal medicine at the University of McMaster, in Hamilton, Ontario. Ally Prebtani, Madeleine Verhovsek, and Tim O'Shea are staff attending physicians at McMaster University. Musa Waiswa is a staff attending physician at Makerere University, in Kampala, Uganda. Correspondence may be directed to andrew.duncan@medportal.ca.

Summary

The McMaster Internal Medicine International Health Elective (IHE) has been placing senior medical residents (PGY-3) in an elective setting in a teaching hospital in Kampala, Uganda, for the past 7 years. This article discusses a study in which the authors electronically mailed a survey to alumni of this elective to evaluate important aspects of program participation from the residents' point of view. The factors most commonly cited as being important in the decision to apply to the McMaster IHE were to gain experience practising medicine in a resource-limited setting and to gain exposure to diseases and conditions not commonly encountered in Canada. Most residents (61.5%) planned to have some involvement in global health prior to their elective, and 100% felt the elective experience made them more likely to take part in global health activities in the future.

IHEs offer a unique opportunity for residents to explore global health. Residents participating in this survey found the McMaster Internal Medicine IHE to be a successful endeavour.

Résumé

Depuis sept ans, le programme de médecine interne générale de l'université McMaster envoie des médecins résidents en Ouganda, dans le cadre d'un stage optionnel en santé internationale (IHE pour *International Health Elective*) offert dans un hôpital d'enseignement à Kampala. Cet article discute d'une étude dans laquelle les auteurs ont envoyé par voie électronique un sondage aux anciens étudiants de ce stage optionnel afin d'évaluer certains aspects importants de la participation au programme, du point de vue des résidents. Les facteurs les plus souvent mentionnés comme étant importants dans la décision de postuler ce stage étaient d'acquérir de l'expérience dans la pratique de la médecine dans un contexte de ressources limitées et de se familiariser avec des maladies et des conditions que l'on ne rencontre pas souvent au Canada. La plupart des résidents (61,5 %) prévoyaient s'impliquer d'une certaine manière en santé mondiale avant leur stage, et 100 % ont le sentiment que leur expérience de stage les a rendus plus susceptibles de prendre part à des activités en matière de santé mondiale dans le futur.

Le stage optionnel en santé internationale offre une occasion unique aux résidents d'explorer le domaine de la santé mondiale. Les résidents qui ont participé à ce sondage considèrent que le stage optionnel en santé internationale du programme de médecine interne générale de l'université McMaster est une initiative couronnée de succès.

The McMaster Internal Medicine International Health Elective (IHE) has been placing senior medical residents (PGY-3) in an elective setting in a teaching hospital in Kampala, Uganda for the past 7 years. Objective research regarding resident experiences (positive and negative), challenges, and lasting effects of undertaking international health electives is lacking.^{1,2} Further, we are unsure of any unintended negative consequences of IHE electives for the resident or hosting institution. Given the increasing demand for IHEs^{3,4,5} and the lack of available objective data, we conducted a survey of the participating residents to gain insight into their motives, experiences, perceived obstacles, and lasting effects of participating in the McMaster IHE.

Background

Since 2004, the partnership between McMaster University and Mulago hospital (Makerere University) has allowed 13 senior medical residents to travel to Uganda to take part in a 1-month IHE. This elective is facilitated and supported by the Internal Medicine Residency Program with logistical assistance from Health Volunteers Overseas (HVO), a non-governmental organization with extensive experience in supervising elective experiences in Uganda. The premise of the program is to provide a unique opportunity for senior residents to apply their CanMEDS roles in a culturally sensitive manner in a resource limited setting (Table 1). Specifically, residents manage new diseases, are introduced to the concept of international health education, and forge partnerships for future health development projects.

Previous studies of IHEs have demonstrated a significantly positive impact on both the residents' knowledge and diagnostic and communication skills.^{6,7} Further, residents who complete an IHE appear to have a greater appreciation of the importance of public health and health service delivery and a better understanding of health resource allocation.⁵ Despite these positive effects, formal IHEs at the residency level are scarce in Canadian institutions; as a result, formal research concerning the residents IHE experience is lacking.

Methods

A 12-question survey was electronically mailed via Survey Monkey to residents who had taken part in the Uganda elective

Table 1. Learning Objectives for Participants in the McMaster International Health Elective

Gain clinical experience in the delivery of health care in a developing country
Increase awareness of the complicated barriers to health care in a resource-poor environment
Enhance cultural sensitivity and a global health perspective
Refine history taking and physical examination skills in a technologically poor environment
Develop an ability to deal with complex medical problems with limited resources
Explore international health as a potential career interest
Develop mentoring relationships with McMaster University faculty interested in international health
Acquire proficiency in basic global health issues
Participate in research that addresses the health or the health services of a developing country
Develop a sense of social responsibility
Gain motivation to continue this type of overseas work post-residency

Figure 1. Intention to incorporate global health into residents' career.

($n = 13$). The survey assessed the following: motives for participating in the elective, the ability of the program to meet the residents' learning objectives, aspirations to include global health in career plans prior to and upon completion of the elective, suggestions for improvement to the program, and overall satisfaction with the program. The survey was predominantly ratings based utilizing Likert scales, and included several questions requiring write-in responses.

Results

The survey had a response rate of 100%. When probed about

Figure 2. Level of preparedness prior to departure.

Table 2. Important Factors in Preparing for the McMaster International Health Elective

Extremely important	Formal pre-departure sessions
Very important	Health Volunteers Overseas pre-departure materials
	Information from prior participants
	My own research and reading

Table 3. Reasons for Applying to the McMaster International Health Elective, and Learning Objectives

Extremely important	Gain experience practising in a resource-limited setting
	Help to consider international health as a career option
	Experience a different culture
Very important	Gain exposure to diseases not commonly seen in Canada
	Enhance clinical and diagnostic skills
	See a different area of the world

Table 4. Program’s Ability to Meet Learning Objectives

Far exceeded expectations	Gain experience practising in a resource-limited setting
	Gain exposure to new diseases
	Experience a different culture
	See a different area of the world
Somewhat exceeded expectations	Enhance clinical and diagnostic skills

intentions to incorporate global health into their career (Figure 1), prior to their departure 60% of participants had anticipated a small component of their career would be dedicated to global health. Following completion of the McMaster IHE, 100% of residents felt they were more likely to incorporate global health into their practice.

Pre-departure training for this elective has, to this point, not been systematized or standardized. Much of the preparation is accomplished through informal question-and-answer sessions

with previous participants. Formal pre-departure sessions are provided by program faculty; however, the amount of training given year to year has been variable. These sessions cover a variety of topics ranging from cultural and ethical issues with international electives to background information on diseases and conditions more commonly encountered in Uganda. In our survey, 25% of residents rated their level of preparedness as only somewhat well prepared, with the remainder feeling that they were well to extremely well prepared (Figure 2). When asked to rank factors that were most important in preparing the residents for their time in Uganda, the formal preparatory sessions offered at McMaster were ranked as the most important component, with 38.5% of respondents ranking it as extremely important (Table 2). Other important preparatory tools that were rated as “very important” included materials from HVO, information from prior participants, and the residents’ own research.

When assessing the reasons for applying to the McMaster IHE, over 50% of residents rated the opportunity to “gain experience practising in a resource-limited setting” or “to experience a different culture” as an extremely important consideration (Table 3). Residents overwhelmingly supported the idea of using the elective as a trial period to assess the desirability of incorporating international health in their career paths. Other highly rated responses included the opportunity for exposure to diseases not commonly seen in Canada, and the chance to see a different part of the world. Upon further inquiry, residents felt that the program was able to adequately meet these learning objectives, often far exceeding their expectations (Table 4).

Discussion

The results of the survey are consistent with the original goals and philosophy of the program. The program met the residents’ learning objectives in that they experienced and managed new diseases, were afforded the opportunity for both teaching and learning from Ugandan residents, and were able to create ties for future international health projects. Several residents have initiated collaborative research projects with their Ugandan colleagues, resulting in at least one peer-reviewed publication.⁸ In terms of areas requiring improvement, administrative issues upon arrival to Mulago may require revision as several residents cited it as an obstacle prior to starting the elective.

Because the elective is only 1 month in duration, the residents identified the importance of thorough preparation prior to departure. Ideally, residents should be able to transition as seamlessly as possible into their rotation. The majority of the alumni of this program rated formal pre-departure sessions as being extremely important for preparation for the international health elective. However, pre-elective preparation is one aspect

of the program that was identified as an area for possible improvement as only 17% of respondents rating their level of preparedness prior to departure as “very well prepared” or “extremely well prepared.” Systematizing and standardizing the formal pre-departure training may help to address this potential weakness. Ideally, these sessions should be formally evaluated and adapted to meet the needs of the residents.

As the alumni of this program progress in their careers, further research will determine if these intentions translate into tangible outcomes. Prospective studies comparing residents selected for this elective with their peers who are not may provide additional information as to the effect of such an experience on future career paths. Additional research will also focus on the impacts of this elective, both positive and negative, on the host institution.

Conclusion

As measured from the residents’ perspective, the McMaster University Internal Medicine IHE has been a successful endeavour. Residents have rated the experience highly, and participants have expressed an increased interest in global health as a result of this elective. The program could be strengthened by providing a greater degree of pre-departure

training and by providing opportunities for alumni to continue their collaboration with their Ugandan colleagues. Given the limited amount of information published with regard to IHEs, the above findings are useful in understanding and planning future IHE programs.

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