

Global Health Initiatives and Electives: A Survey of Interest among Canadian Otolaryngology Residents

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ABSTRACT ([Email Abstract](#)) Objective:

To determine the level of interest among Canadian otolaryngology residents in global health initiatives (GHIs) and international health electives (IHEs) and the barriers to participation in such initiatives.

Methods:

A Web-based survey was developed and sent to all Canadian otolaryngology residents. Questions were posed on demographics, the level of interest in GHIs and IHEs, past experiences in this field, real and perceived barriers in pursuing GHIs and IHEs, previous global health experience, and, finally, the current infrastructure that exists in Canadian postsecondary institutions and otolaryngology programs to encourage participation.

Results:

The level of interest among Canadian otolaryngology residents in GHIs and IHEs is at least 32%. The greatest barriers to pursuing this interest are cost, lack of infrastructure, lack of mentors, and lack of elective time. To contribute to an important cause was the top reason (79%) cited by respondents for their interest in global health. This was followed by personal growth and to learn about medicine in low- and middle-income countries, respectively.

Conclusion:

At least 32% of Canadian otolaryngology residents showed interest in participating in a GHI or IHE. We must devise means of overcoming barriers to participation in GHIs and IHEs and facilitate the clear and substantial resident interest in GHIs and IHEs. By supporting these endeavours, we will expose a cross section of physicians to global issues and give them an important and meaningful context in our increasingly interconnected world.

Translated Abstract SOMMAIRE Objectif:

L'enquête avait pour objectifs de déterminer le degré d'intérêt des résidents en otorhinolaryngologie au Canada à l'égard des initiatives mondiales pour la santé (IMS) et des stages au choix en santé internationale (SCSI), et de cerner les obstacles à la participation à ce genre d'actions.

Méthodes:

Une enquête en ligne a été élaborée, puis envoyée à tous les résidents en ORL au Canada. Les questions portaient sur des données démographiques, le degré d'intérêt pour les IMS et les SCSI, les expériences passées dans le domaine, les obstacles réels ou perçus à la poursuite de ces actions, les expériences antérieures en santé mondiale et, finalement, l'infrastructure actuelle dans les établissements postsecondaires au Canada et les programmes d'ORL visant à favoriser la participation.

Résultats:

Le degré d'intérêt des résidents en ORL au Canada pour les IMS et les SCSI s'élève à au moins 32%. Les principaux obstacles à la poursuite de ces actions étaient le coût, le manque d'infrastructure, le manque de mentors et le manque de temps réservé aux stages au choix. Contribuer à une cause importante était la raison invoquée le plus souvent (79%) par les répondants pour justifier leur intérêt à l'égard des initiatives en santé mondiale. Suivaient la croissance personnelle et la pratique de la médecine dans des pays à faible revenu et dans des pays à revenu intermédiaire, respectivement.

Conclusion:

Au moins 32% des résidents en ORL au Canada ont manifesté de l'intérêt pour les IMS et les SCSI. Nous devons trouver des moyens de surmonter les obstacles à la participation aux IMS et aux SCSI, et de stimuler l'intérêt certain des résidents en la matière. En soutenant ce genre d'actions, nous exposerons une partie des médecins à des problèmes mondiaux et nous leur offrirons un contexte important et significatif dans un monde de plus en plus interrelié.

Keywords

CanMEDS, electives, global health, postgraduate medical education, otolaryngology, residency training.

The need for global health initiatives (GHIs) has been recognized in the world medical community for over a decade. This need was formally recognized by the World Health Organization in 2005 by a mandate for a global initiative for emergency and essential surgical care.¹

Incorporation of global health training into medical school and residency programs has received wide acceptance in medical schools across Canada and worldwide. A review of American medical schools showed that at least 47% (60 of 129) have established initiatives, institutes, centres, or offices of

and worldwide. A review of American medical schools showed that at least 47% (60 of 129) have established initiatives, institutes, centres, or offices of global health.² In 2000, the Association of Faculties of Medicine of Canada (AFMC) created the Global Health Resource Group. In a 2006 report, this group stated that “the question is not, will global health issues need to be incorporated into the curriculum, but when and how.”,³

Health Canada recently identified a newly defined role for Canadian medical professionals: social accountability.⁴ More and more, we realize that the art of practicing medicine is much more than clinical practice alone. In 1996, The Royal College of Physicians and Surgeons of Canada (RCPSC) emphasized the importance of this concept through the development of the CanMEDS roles. Also known as the Canadian Medical Education Directives for Specialists, CanMEDS was a project started in 1993 to identify the core competencies required by all physicians to successfully meet the needs of society. The resulting framework consists of competencies organized under seven major roles of a physician. They are medical expert (the central role), communicator, collaborator, manager, health advocate, scholar, and professional. GHIs touch at the core of all of these roles by providing ample opportunities for development. In 2009, recognizing the importance of global health, the RCPSC formed the Advisory Committee on International Initiatives.

There have been many previously shown benefits of participation in GHIs. Participation in these initiatives has led to significantly higher average scores in the preventive medicine and public health portions of the United States Medical Licensing Examination⁵ and a significant increase in skill and knowledge in primary health care, as well as economic, environmental, and political influences on health care.,⁶ Furthermore, participation in GHIs has been shown to have positive influences on clinical diagnostic skills.,⁷ Studies have also shown that a greater proportion of participants intend to work in resource-poor areas compared with students or residents who have not participated in GHIs.,⁸

Although several departments of otolaryngology-head and neck surgery across Canada are involved in GHIs in a variety of ways, formal global health training and opportunities for participation during residency are scarce. Prior to the development of such programs, however, several key pieces of information are required. The purpose of this study was to determine the level of interest, reasons for interest, past experiences, and barriers to participation in GHIs among Canadian otolaryngology residents.

Methods

A Web-based survey was sent to all Canadian otolaryngology residents and fellows ($N = 145$) registered with the Canadian Society of Otolaryngology-Head and Neck Surgery (CSOHS) twice over 2 months. There were no further inclusion or exclusion criteria as all registrants were eligible to participate in the survey. Participation in the survey was anonymous and strictly voluntary.

The survey was composed of a mixture of open-ended and forced-choice questions where applicable. Skip logic was applied. Questions were automatically skipped or included depending on responses. For example, if a respondent indicated previous involvement in a GHI, then questions were posed about when and where this participation had occurred. The survey categories included demographics, previous experience, interest, barriers to participation, and knowledge of current opportunities. Data analysis was performed using the Web-based program *Survey Monkey* (Survey Monkey, Palo Alto, CA) as well as Microsoft *Excel*.

Results

The response rate to the survey was 37% (53 of 145). Sensitivity analysis to assess the minimum proportion interested made the assumption that those who did not respond were not interested in GHIs.

The response rate was evenly distributed across Canadian otolaryngology residency programs. There were 22 (42%) female and 30 (58%) male respondents.

Eighty-seven percent (46 of 53) of respondents expressed an interest in participating in a GHI during their residency. **Table 1** shows the postgraduate year (PGY) level of respondents and level of interest and past participation in GHIs during residency according to PGY. For respondents who had already participated in GHIs during their medical education, **fig1** shows the level of education at which they had participated.

 **Figure 1**
Level of participation in global health initiatives at different stages of education.

 **Table 1**
Postgraduate Year Demographics of Respondents and Subgroup Analysis of Postgraduate Year 2 Fellows

To contribute to an important cause was the top reason (79%) cited by respondents for their interest in global health. The reasons for interest in GHIs are outlined in **fig2**.

 **Figure 2**
Reasons for respondents' participation in global health initiatives.

Cost was by far the biggest barrier to participation in GHIs (70%). This was followed by lack of elective time, lack of mentors, and lack of infrastructure, respectively (**fig3**).

 **Figure 3**
Barriers to participation in global health initiatives cited by survey respondents.

When asked if the availability of an international surgery elective would have positively influenced their choice or ranking of an otolaryngology residency program, 43% (23 of 53) of respondents indicated a positive response.

Discussion

The results of this survey indicate a high rate of interest of at least 32% in global health among Canadian otolaryngology residents. Of 145 residents and fellows registered with the CSOHNS, 53 responded to our survey. Of the 53 respondents, 46 expressed interest in participating in GHIs during their residency. To calculate the level of interest in GHIs among Canadian otolaryngology residents, it was necessary to assume that those who did not respond to the survey were not interested in GHIs. This may certainly not be the case as there are many other possible reasons why some did not respond, such as lack of time, inattention to mass e-mails, or disinterest in responding to surveys. In this survey, it was demonstrated that at least one-third of Canadian otolaryngology residents have an interest in GHIs, compelling educators to give serious consideration to this issue.

Whereas 87% of respondents indicated interest in participating in GHIs during residency, only 7.5% had actually taken part in such initiatives. When looking at their past experiences, many of them (25%) had joined initiatives during medical school and even more (32%) had participated prior to medical school. Given that a number of our respondents were early in their residency and thus would not yet have had much opportunity to participate in GHIs or international health electives, we performed a subgroup analysis of residents in PGY2 to PGY5 and fellow respondents (see **Table 1**). Again, whereas 86% expressed interest, only 8% of PGY2 to fellow respondents had participated in GHIs during residency. These observations led to the following questions: (1) Do opportunities to participate in GHIs decrease as medical training advances? (2) Does interest wane in GHI as medical education advances? (3) Do the barriers to participation increase at higher levels of medical training?

When looking at barriers to participation cited by the survey respondents, the biggest barrier was cost, such as the costs of travel and accommodations. Potential funding sources such as national or university-based travel grants could help alleviate this barrier.

The next three barriers to participation were lack of elective time, mentors, and infrastructure. National leadership and program development could help remove these barriers. For example, a national database linking global health activities in otolaryngology and interested residents was proposed by several respondents in this survey. This would allow residents to find mentors not only for participating in projects abroad but also in project preparation, development, and debriefing. As well, a national global health curriculum developed through national collaboration could be incorporated into Canadian otolaryngology residency programs. The University of British Columbia, for example, recently developed a master's degree in international surgery. Collaboration with this group or similar players could facilitate the development of a potentially exciting postgraduate medical education curriculum module specific to otolaryngology-head and neck surgery. Finally, with respect to elective time, residency programs could consider supporting and promoting well-developed electives dedicated to GHIs and help create a culture of acceptance for such initiatives.

An area that was explored in this study was the reasons for interest in GHIs. This addresses the issue that for residents to advance their education and competencies through participating in GHIs, they must have suitable goals and reasons for wanting to participate. In this survey, 79% responded that to contribute to an important cause was a reason for their interest. This touches on the role of social accountability, as well as the CanMEDS roles of professional and health advocate. Included as top reasons for desired participation were personal growth and to learn about medicine in low- and middle-income countries.

We encountered some limitations in performing this study. One limitation was the low response rate of 37%. However, response rates from similar Web-based surveys have been low. In a similar survey among Canadian general surgery residents, the response rate was lower at 27%.⁹ Another limitation of the study is that owing to the lack of response from all registrants, a true level of interest in GHIs cannot be calculated. However, the level of interest shown by those who did respond was so high that we were able to show that there is significant interest among Canadian otolaryngology residents, which requires attention and action by national educators.

A further incentive for residency programs to incorporate global health training and opportunities to participate in GHIs into their curricula is that a significant number of residents indicated that this would have positively influenced their ranking of a program. As exposure to global health issues increases at all levels of training, this positive view of programs that offer such opportunities will likely continue to increase in significance among future applicants.

Conclusion

This study shows that there is a significant interest in GHIs among Canadian otolaryngology residents. There are many barriers to participation in these initiatives; however, these barriers can all be addressed through leadership, planning, and the development of infrastructure. The reasons for residents' interest in global health are valid and lend themselves to the development of the skills desired and expected of all medical professionals. Residents, residency programs in otolaryngology, and the global health community stand to benefit greatly from the development of programs for global health training at both local and national levels.

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