

Background

As the world has grown more connected through increased access to technology and transportation there has been a greater understanding of how globalization impacts health and increases the importance of addressing the global burden of disease. As interest in global health grows, there has been an increase in international health electives (IHEs) for medical trainees.¹ Structured IHEs allow trainees to enhance their ability to interact with cultures and to practice effectively in resource-limited environments.

INMED, the Institute for International Medicine, is a pioneer in global health training, providing combined didactic education with supervised service-learning experience via 46 training sites in 20 nation throughout Africa, Asia, and Central America. Since 2004 some 375 individuals have completed an INMED international clinical rotation.

Objectives

The purpose of this study is to explore how international health electives (IHE) impact physician training, specifically:

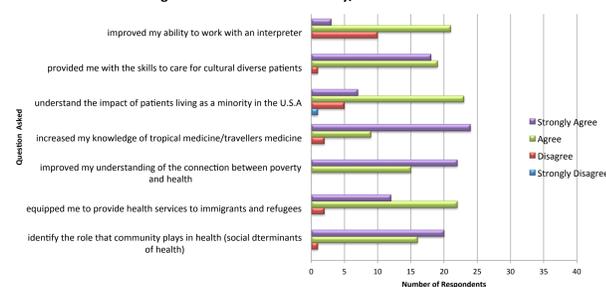
- Who are the INMED alumni?
- Does INMED affect their specialty and choice of patient population?
- Does INMED change their clinical practice of medicine?
- Do INMED alumni continue to work globally?
- What are barriers to continuing work globally?
- Are they satisfied with their INMED experience?

Research Design

The electronic survey was created with Adobe and administered to alumni of INMED IHEs. Alumni were contacted at their last known e-mail address a total of 3 times before survey collection was completed.

Descriptive analysis of results were performed to describe characteristics and perceptions of respondents towards their IHE.

Figure 1. Cross cultural diversity/social determinants of health



Results

Total Survey Responses: 18% response rate (37/205)

Residency Training:

15 Family medicine (48%), 3 OB/GYN (10%), 2 Anesthesiology (6%), 2 Emergency Medicine (6%), 2 Med-Peds (6%), 2 General Surgery (6%), 1 Medical Genetics (3%), 1 Internal medicine (3%), 1 Pediatrics (3%), 2 unspecified other (6%)

Fellowship Training:

6 (16%) completed an ACGME accredited Fellowship: Allergy/Immunology (2), EMS (1), Palliative care (1), GI (1), Neuromuscular(1)
 11 (30%) completed a Non-ACGME fellowship: Global Health/International Medicine (6), Research (1), Teaching (2), Other (2)

Perceived Effect of INMED on career:

Influenced their specialty choice: 6 Strongly disagreed (22%), 15 Disagreed (56%), 5 Agreed (19%), 1 Strongly Agreed (3%)
 Influenced their practice location: 5 Strongly disagreed (19%), 16 Disagreed (59%), 4 Agreed (15%), 2 Strongly Agreed (7%)

Population primarily cared for in practice: 21 Public Assistance (58%), 3 Private (8%), 2 Self-Pay (6%), 10 unspecified other (28%)

29 regularly care for underserved population in practice (76%), 10 volunteer in a clinic that provides care for the underserved (26%), 3 do not provide care to underserved patients on a regular basis (8%).

Global Health Post INMED: 18 (47%) of respondents have been Involved in global health since completing their INMED experience.

14 participate in short term commitments (<4 wks) (78%), 6 participate in long term commitments (4 wks or longer) (34%).

Effect on training: INMED IHEs improved their ability to care for diverse populations through enhanced understanding of cross cultural diversity and social determinants of health (figure 1), improved their clinical practice of medicine (figure 2), and enhanced altruism in medicine (figure 3).

Barriers to continuing international work: 16 training program does not allow time for IHEs (67%), 14 financial concerns (58%), 7 lack of time (29%), 3 family obligations (13%).

Satisfaction with INMED experience: 24 very satisfied (65%), 11 satisfied (30%), 1 neutral (3%), 1 dissatisfied (3%)

Figure 2. Clinical Skills and Practice

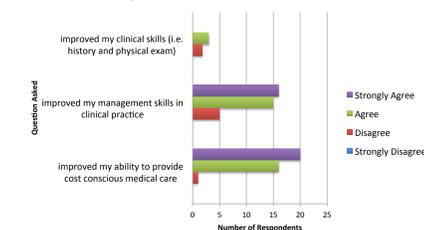
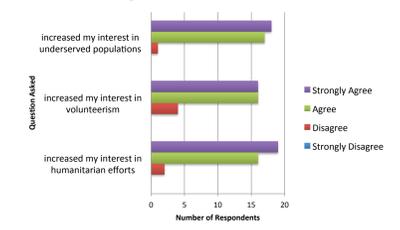


Figure 3. Increased Altruism



Discussion

Similar to other studies, INMED alumni are more likely to pursue specialties that interact with disadvantaged populations.^{2,3} Despite this association, they reported that IHEs did not influence their choice of specialty or practice location. The authors suspect that those interested in working with the disadvantaged abroad are also interested in working with them Stateside.

Alumni reported several benefits from IHEs. As noted in prior studies, they agreed that IHEs provided them with the skills to care for a culturally diverse and socioeconomically disadvantaged populations.¹⁻⁵ In addition, they felt more prepared to provide cost conscious care in diverse systems. This may help decrease healthcare costs in the United States. This study also reinforced reports that IHE increased interests in caring for the underserved, volunteering, and participating in humanitarian efforts.^{2,3,5}

Respondents reported that despite continued interest in global health there are significant barriers to participation. These are primarily financial limitations and time limitations during training. This reinforces the need for larger institutional support for graduate medical opportunities in IHEs.⁵

A limitations to this study is the low return rate. Also, this study assessed attitudes and perceptions, this may not accurately reflect what occurs in vivo.

Conclusions

Not only does INMED plays a vital role in supporting clinicians interested in global health, it also provides learners with the skills to care for the underserved in the United States. Learners strongly agree that INMED programs provide training in care of diverse populations, improves the clinical practice of medicine, and enhances altruism.

A significant proportion of alumni have continued to work globally after working with INMED, primarily on short term commitments. In order to promote global health, there is a need for a globalized effort to encourage and financially support IHE during graduate medical training.

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References

1. Drain, P. K., Holmes, K. K., Skeff, K. M., Hall, T. L., & Gardner, P. (2009). Global health training and international clinical rotations during residency: current status, needs, and opportunities. *Academic medicine: journal of the Association of American Medical Colleges*, 84(3), 320.
2. Thompson, M. J., Huntington, M. K., Hunt, D. D., Pinsky, L. E., & Brodie, J. J. (2003). Educational effects of international health electives on US and Canadian medical students and residents: a literature review. *Academic Medicine*, 78(3), 342-347.
3. Gjerde, C. L., & Rothenberg, D. (2004). Career influence of an international health experience during medical school. *Fam Med*, 36(6), 412-6.
4. Sawatsky, A. P., Rosenman, D. J., Merry, S. P., & McDonald, F. S. (2010, August). Eight years of the Mayo International Health Program: what an international elective adds to resident education. in *Mayo Clinic Proceedings*(Vol. 85, No. 8, pp. 734-741). Elsevier.
5. Drain, P. K., Primack, A., Hunt, D. D., Fawzi, W. W., Holmes, K. K., & Gardner, P. (2007). Global health in medical education: a call for more training and opportunities. *Academic Medicine*, 82(3), 226-230.