General Internal Medicine and Technologically Less Developed Countries

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Objective: To assess the international health activities of departments of medicine, divisions of general medicine, and general medicine faculty and the interest among departments of medicine in joint international health ventures.

Design: 15-item, mailed questionnaire.

Participants: 100 chiefs of divisions of general medicine associated with training programs in internal medicine.

Interventions: None.

Measurements and main results: Completed questionnaires were returned by 25 division chiefs representing 1,355 general medicine faculty. 49% of divisions had faculty with six weeks' experience in less developed countries. 8.5% of general medicine faculty had six weeks' experience in less developed countries. 7.6% of general medicine faculty were interested in spending extended time in less developed countries. 19% of departments had formal collaborations with schools in less developed countries. 45% of departments were interested in affiliations with U.S. institutions for the purpose of joint international health ventures.

Conclusions: The international health interests of current general medicine faculty may not be satisfied. Departmental and divisional encouragement of international interests would increase the number of U.S. general internists participating in less developed countries. The authors discuss the potential for greater involvement of general medicine faculty in international health.

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OVER THE LAST HALF-CENTURY, health in the United States has improved considerably. Nevertheless, the goal of an acceptable level of health for all U.S. citizens has not yet been achieved. In much of the technologically less developed world, the goal of "health for all" can only be dreamed of. Physicians in the United States necessarily seek to improve the levels of health of their patients and their local communities. But the burden of illness in the greater world community cannot be ignored. U.S. health professionals should share in the responsibilities for improving health in the developing world. Because of their training and responsibilities, academic general internists are especially well suited to contribute to, and learn from, international health experiences. Indeed, some general medicine faculty are currently involved with less developed countries. However, the extent of participation by such faculty and the interest among academic general internists in future involvement remain unknown.

Therefore, we surveyed the international health interests and activities of general medicine faculty in the United States. We also examined current participation of medicine departments in international health, as well as their interest in establishing affiliations with other U.S. institutions for the purpose of joint international health ventures. We report the results of this survey and discuss the potential for general medicine faculty and departments of medicine to participate more fully in health care in the developing world.

METHODS

We developed a 15-item questionnaire to determine general medicine divisions' and their medicine departments' interests and participation in health care in less developed countries. A less developed country was defined as any country except Australia, Canada, countries of Eastern and Western Europe, Hong Kong, Israel, Japan, New Zealand, Singapore, the U.S.A., and the U.S.S.R. For questions pertaining to faculty time or effort spent in less developed countries, time spent in the U.S. armed forces was excluded.

The questionnaire measured divisional faculty interest and past and present participation in health care delivery, research, and/or education in less developed countries; departmental resident participation in less developed countries; departmental collaboration with schools in less developed countries; and departmental interest in developing affiliations with other U.S. institutions for the purpose of creating opportunities for U.S. faculty and residents to participate in primary care delivery, education, and/or research in less developed countries. The questionnaire was pilot-tested on division chiefs within the investigators' school of medicine and revised.

We identified all 98 chiefs of divisions of general internal medicine who were registered with the Society of General Internal Medicine in January 1989. We identified two additional division chiefs through personal contacts. The 100 division chiefs represented 98 departments of medicine from 80 medical schools in 41 states. All of the departments of medicine had accredited training programs in internal medicine.
We mailed questionnaires to all division chiefs in February 1989. Non-respondents were sent a second mailing of the same survey instrument in March 1989. Included in the following analysis are all completed questionnaires returned by May 1, 1989.

**RESULTS**

Eighty-seven division chiefs returned completed questionnaires (87% response rate). These respondents represented 1,355 general internists, 85 departments of medicine, and 73 schools of medicine in 39 states. The range of sizes of the general medicine divisions was 3 to 59 faculty members. The mean number of faculty per division was 16, and the median was 12.

Of the 87 divisions, 43 had faculty with at least six weeks' experience in a less developed country (see Table 1). Fifteen of the divisions had faculty with experience in Central America; 7, in South America; 15, in the Caribbean basin; 20, in Subsaharan Africa; 9, in the Middle East; and 28, in Asia. Total faculty experience had occurred in 50 countries. The countries most frequently listed were India (nine divisions), Nicaragua (eight divisions), and Thailand (eight divisions).

Division chiefs reported that their faculties had had experiences in a number of different sites, where they were engaged in a variety of activities (Table 1). Twenty-seven divisions had faculty with international experience at academic medical centers; 21, at community health centers; 20, at district hospitals; 10, at mission hospitals; and 4, at other sites, including refugee camps, a military hospital, and a university. Thirty-five of the divisions had faculty who, during their activities in a less-developed country, had engaged in patient care; 33, in teaching; 19, in research; and 11, in administration. Four division chiefs listed faculty who had been involved in other activities as well, including a smallpox eradication program and student programs. Support for the faculty experiences had come from private foundations (21 divisions), personal earnings (21 divisions), U.S. medical schools (16 divisions), the U.S. government (15 divisions), and mission agencies (10 divisions). Additional sources of funding included patient care revenues; local hospital, school, and government; private corporations; and the World Bank.

Of the 1,355 general internists represented by the responses to the questionnaire, 115 had worked or trained in less developed countries for at least six weeks at some time during their professional careers (Table 2). These 115 internists had logged 158 total years of experience in 50 countries. Each year for the preceding five years, an average of 70 U.S. general internists from 34 divisions had participated for any amount of time in health care delivery, education, and/or research in a less developed country. Each year for the preceding five years, an average of 36 foreign faculty from less developed countries had worked or trained for any amount of time in 20 U.S. divisions of general internal medicine.

Thirty-seven departments had had residents over the preceding five years who had worked in a less developed country at some time during their residency training (Table 2). Each year for the preceding five years, an average of 107 residents had worked or trained for any amount of time in a less developed country. Twenty-six of the departments gave residents credit toward completion of the training program for time spent in a less developed country. Only 16 of the 85 departments of medicine had formal programs that provided their faculty and/or residents opportunities to participate in health care delivery, education, and/or research in a less developed country (Table 2). An additional four departments of medicine had plans to develop formal programs with health care institutions in a less developed country. Seven of the departments with formal programs had had no participation by general medicine faculty.

Division chiefs from 38 departments of medicine reported that 103 general medicine faculty had interest in working at some time in the future for six to 12 months in primary care delivery, education, and/or research in a less developed country (Table 2). Eighty-one of these 103 general medicine faculty were members of 27 departments of medicine that did not formally collaborate with a medical training site in a less developed country.

Division chiefs were interested in exploring the possibility of developing an affiliation with other U.S. institutions that would give faculty and residents the opportunity to participate in primary care delivery, education, and/or research in a less developed country. These 38 departments represented 79