# Creation of Postgraduate Training Programs for Family Medicine in Vietnam

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Background and Objectives: *The Vietnam Family Medicine Development Project has successfully created postgraduate training programs for family medicine in Vietnam. This paper's objective is to report on the project's progress and provide initial evaluation results.* Methods: *A training network of medical schools in Vietnam partnered with family medicine departments in the United States to accomplish the goal of establishing family medicine as a specialty in Vietnam with assistance from the Ministry of Health. Together they created a curriculum and ambulatory training sites. Faculty development was accomplished, and training programs were implemented.* Results: *A preliminary assessment of some of the graduates demonstrates that family physicians in Vietnam provide enhanced primary care with better patient satisfaction. A more-complete evaluation is underway.* Conclusions: *Initial establishment of the specialty of family medicine in Vietnam has been successful. Ongoing support for the development of this new primary care specialty has been garnered in each of the medical schools and at the ministerial level throughout the country.*

(Fam Med 2007;39(9):634-8.)

Basic health needs of populations are best served by having well-trained generalists provide excellent primary health care. Work by Starfield and others[1,2] has shown that by quantifying access to competent, community-based, affordable primary care with a "primary care score," higher scoring is associated with improvement in health indicators, a decrease in cost, and improvement in satisfaction.[3-7] Drawing on the 1978 call by the World Health Organization (WHO) to enhance primary health care,[8] a joint meeting of the WHO and the World Organization of Family Doctors (Wonca) declared: "The family doctor should have a central role in the achievement of quality, cost-effectiveness, and equity in health care systems."[9] Developing systems and policies that can support this in developing countries is ongoing work, and our paper discusses this process in Vietnam over the last 10 years.

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## The Vietnamese Health System—Background

At present, the Vietnamese Ministry of Health (MOH) administers a network of 10,000 Commune Health Centers (CHCs) developed in the 1950s. Vietnamese general doctors graduate with 6 years of medical school immediately after secondary school to enter directly into practice in the CHC system (Figure 1). Upon entering practice, they have had no training in ambulatory medicine and no opportunities for organized continuing medical education. In many areas, there is low utilization of the CHC health care teams, likely due to the population's lack of confidence in those teams.[10] The result for the health system is expensive and often mismanaged patient self-referrals to a limited supply of specialists in urban areas (personal correspondence with P. Chienne, Hanoi, Vietnam, 2005).

## The Mandate for Family Medicine

In 1995, the MOH commissioned a primary care needs assessment, following which it developed an outline for developing a system of primary care based on providing family medicine at the CHCs.[11] In March 2001, the MOH decreed the establishment of family medicine as a new first-degree medical specialty. This new orientation in health care delivery was affirmed by Party Resolution No. 46-NQ/TW, a policy calling

for the strengthening and improvement of the grass roots health network of CHCs. Processes necessary to develop and support this new specialty were outlined at several levels (Table 1), and a Vietnamese-US work group met with the MOH to plan how to implement training of family physicians.[12]

**Policy Into Practice: Developing New Training for Health Service Delivery**

Following agreement on the process for development of family medicine, a project oversight committee was created. Chaired by the Vice Minister of Health for Training and Research, this committee included representation from three medical schools initially included in the training network and two advisors from the United States. The oversight committee met semiannually to discuss challenges, review curricular changes, and oversee the training of trainers and the training of physicians. As new training sites joined the project, this leadership group expanded. The committee's ability to facilitate communication among sites expedited the implementation process considerably. As of 2007, all medical schools except two have representatives of the nascent programs for family medicine in this group.

*Academic Departments*

Academic departments are critical for medical training and for recognition within the Vietnamese health care system. Initially, each medical school created a center for family medicine under direct supervision by the dean. These centers served as an acceptable entity in each institution with which to proceed with the development work. In 2007, the Hanoi Medical University will become the first school to transition this development center into a full academic department.

*Faculty Development*

Faculty development is a key component in the creation of the training centers. In Vietnam, teaching qualifications are distinct from clinical qualifications, and teaching qualifications include several years' advanced study. To this end, academically qualified medical educators are needed to be retrained in family medicine and then establish postgraduate programs commensurate with the Vietnamese training infrastructure (Figure 1).

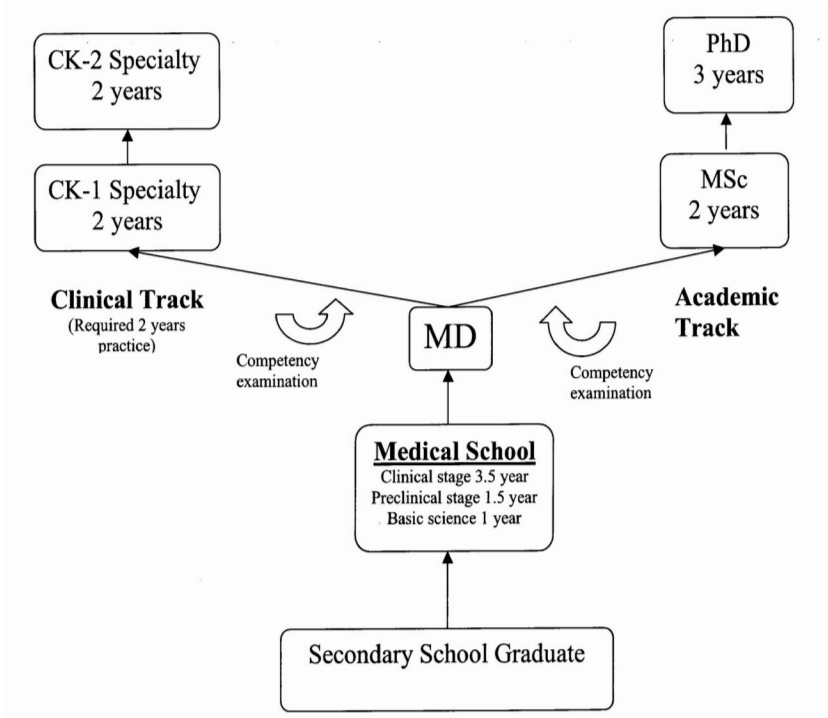
Faculty development was accomplished in two primary formats: (1) faculty development fellowships in the United States and (2) faculty development workshops in Vietnam led by joint US-Vietnamese teams. Each institution selected a senior physician program director to be responsible for curriculum development, faculty development, and principal teaching responsibilities. One-year fellowships were designed for these individuals. Additional fellowships of 6 months for the primary teachers and 1 month for specialists from departments associated with the new training programs were offered.

In all, a total of 28 physicians were trained in this manner. The fellows' learning goals included understanding novel methods of medical education and adult learning theory, curriculum development, administration, and organization of ongoing educational programs for maintenance of skills (lifelong learning). Faculty development workshops were also conducted in Vietnam at national and local levels provided by the joint US-Vietnamese teams each year.

Starting with these fellowships, a collaborative network linking US family medicine departments with Vietnamese institutions was developed. The US partners included Boston University, the Maine-Dartmouth

Figure 1

The Training Pathways in Medical Education in Vietnam*




* CK-1 and CK-2 are designations for first and second specialty trainings; academic track qualifications are required for teaching in university settings.

Table 1

Recommendations for Policy and Institutional Changes to Support Development of Improved Training for Vietnamese Primary Care Physicians

**Changes occurring at national level**
- Establish policy endorsing family medicine training for primary care
- Establish national oversight committee
- Develop academic departments of family medicine in all medical schools
- Link US and Vietnamese family medicine departments
- Develop and administer training entrance examinations
- Develop and administer post-training certifying examinations

**Local institutional responsibilities**
- Upgrade community training sites
- Curriculum development
- Conduct faculty development
- Create family medicine departments in each medical school
- Implement the training program
- Evaluate transition to community-based practice

Family Medicine Program, the Maine Medical Center, and the University of Massachusetts. The institutional pairs worked together to develop a curriculum, train teachers, implement postgraduate family medicine training, teach courses, advocate for policy changes, and evaluate the programs.

*Curriculum Development*

In 2001, a curriculum committee was convened to determine the expectations and time frame of the "first-degree specialty" training. Although much (75%) of the training content is federally mandated, the remaining 25% is determined locally by faculty members in each institution. Ongoing evaluations of curriculum efficacy and periodic revisions have been made since the initiation by the MOH and the participating institutions in 2003 and 2007 (Table 2).

*Training Sites*

Each participating medical school made significant efforts to develop locally relevant aspects of the training programs, using the strengths of their institutions and their academic faculty. The first three schools were in Hanoi, Ho Chi Minh City, and Thai Nguyen, joined in 2002 by Can Tho Medical College and in 2006 by Hue Medical College. Each site chose training sites relevant to their local needs—ranging from outpatient clinics of affiliated teaching hospitals to sites in district health centers. Equipment was provided for basic clinical exams and training, and the physical site was set up and labeled to be clear as a home for the new specialty.

*Trainee Selection*

Developing criteria for selecting the first trainees required assessment of the curricular goals. One standard for selection was for the trainees to have had general practice experience prior to specialty training in family medicine. In addition, candidates were given an entrance examination, prepared by each individual program. This also was in line with the national standard for admission to a postgraduate training program.

Table 2

Outline of Standard Curriculum for Family Medicine First-degree Specialty in Vietnam, Curriculum Hours Allocated in 2-year Curriculum, Indicating Division of Theoretical and Clinical Time, 2007

| *Subject* | *% of Total Time* | *Theoretical Study (Hours)* | *Clinical Work (Hours)* |
|---|---|---|---|
| Philosophy | 6 | 6 | 0 |
| Informatics | 4 | 2 | 2 |
| English | 10 | 10 | 0 |
| Biostatistics | 3 | 2 | 1 |
| Intensive care | 7 | 3 | 4 |
| Internal medicine | 9 | 4 | 5 |
| Surgery | 9 | 4 | 5 |
| Pediatrics | 9 | 4 | 5 |
| OB-GYN | 9 | 4 | 5 |
| Surgical subspecialty | 9 | 4 | 5 |
| Common ambulatory problems | 4 | 3 | 1 |
| Community medicine | 4 | 3 | 1 |
| Behavioral medicine | 3 | 2 | 1 |
| Examination review | 14 | | |

*Certification*

Criteria for national certifying examinations for the graduates will be developed to bring uniformity of competence to the new specialty of family medicine. Development of the certification examination is still in process and not presently a strategy in any of the other specialty training programs in Vietnam.

## Family Medicine Graduates

Physician training began in 2002 at three sites, with 15–20 participants in each site. As noted above, two additional schools followed. Table 3 shows the distribution of graduates and enrollees at each site by year. To date, there have been 123 graduates from the family medicine programs in Vietnam.

A pilot evaluation of the first graduates from the program at the Hanoi Medical Uni-

Table 3

Number of Family Medicine First-degree Specialty Students (Number of Completed Graduates/Total Enrollees), by Program Site and Year

| *Site* | *2002–2004* | *2003–2005* | *2004–2006* |
|---|---|---|---|
| Hanoi | 20/20 | * | 15/15 |
| Ho Chi Minh City | 15/17 | 10/10 | 13/13 |
| Thai Nguyen | 19/20** | | |
| Can Tho | | | 31/31 |

* Did not enroll trainees in 2003; waited for end of training of initial class
** Training was on a part-time basis over 4 years

versity has been completed.[12] Using a post-intervention measurement design, eight first-degree specialty family medicine trainees were compared to eight physicians without postgraduate medical training. All subjects had returned to their CHC position, and all were observed in the clinical setting. Study outcomes included observation of the six core principles of family medicine, patient satisfaction, and practice parameters (Table 4). These were assessed at 4-month intervals over a 14-month period of time. Physicians were directly observed while providing clinical care to patients by members of the Hanoi Medical University Department of Health Economics, and patient interviews were conducted.

Preliminary data from the observations of behavior were analyzed using SPSS (version 13.0). Analysis included means and percentages of the family medicine graduates and control physicians for the four measurement periods. Although numbers of subjects were small and do not allow for representative statistical analysis, this showed that such observational studies over time are feasible in the CHC setting.

The trained first-degree specialist in family medicine tended to have more observations of adherence to clinical procedures deemed important in the practice of family medicine, such as recordkeeping, situating care in the context of family, and following up on their patients.

Although there were a small number of family medicine graduates in the study, this pilot demonstrated that a larger study of this sort is feasible and is now underway.

**Discussion**

Family medicine has undergone significant development in Vietnam during the last decade. Since 2001, an educational system for the training of family medicine specialists has been created and maintained throughout the country with the assistance of major donors and collaboration of multiple medical institutions in Vietnam and the United States.

Initial evaluation results are encouraging, and more-extensive evaluation of the training programs is just beginning, with a larger study planned to encompass

Table 4

Components of the Pilot Evaluation of Family Medicine of Hanoi Graduates

| *Principle of Family Medicine* | *Areas Assessed* | *Method of Assessment* |
|---|---|---|
| Comprehensive care | Comprehensive examination<br>Family context<br>Attention to psychological and social issues | Direct observation<br>Patient survey |
| Continuous care | Physician knowledge about patients<br>Number of patients who have a medical record book<br>Level of documentation over time | Medical record review<br>Direct observation |
| Coordinated care | Referral to hospitals and specialists with appropriate information | Medical record review<br>Patient surveys |
| Preventive care | Offering health counseling and education | Direct observation<br>Patient survey |
| Family orientation | Physician knowledge about patients and family members; family members obtaining care at the health center | Direct observation<br>Patient survey |
| Community orientation | Physician expression of and knowledge about community health needs | Direct observation |
| Patient satisfaction | Physician demeanor, perceived quality of care, staff demeanor | |
| Practice parameters | Waiting time, health facility formalities, facility infrastructure | |

all graduates. The MOH in Vietnam has instructed all medical schools to develop postgraduate training programs in family medicine and create academic departments of family medicine by 2010.

*Challenges and Solutions*

Future plans include further integration of family medicine into the medical education and health care delivery system in Vietnam, but many challenges still exist. Undergraduate programs in family medicine are yet to be developed. Teachers who have been trained and have practiced as family physicians need to evolve. The high level of regulation of the practice of medicine in Vietnam until now has escaped the specialty of family medicine, though practice guidelines for this new specialty are being requested by the training programs so that their graduates will have a defined role in the health system. Efforts to attract and retain these postgraduate trained physicians in rural areas also may pose a challenge.

Some possible solutions are at hand. A faculty development center for family medicine at the Hanoi Medical University is being developed to allow for the local training of the future teachers and leaders of the discipline. A pilot program is underway in the Khanh Hoa Province of central Vietnam to examine novel ways of offering rural general practice physicians advancement opportunities to the level of the first-degree specialist in family medicine. Financial incentives and flexible teaching arrangements may encourage students to enter this field.

## Conclusions

The training and practice of family medicine in Vietnam is now an integral part of the health plan of the country, with a goal of staffing all CHCs with a family physician. As the number of family physicians grows in Vietnam, their work will lead to improvement of Vietnam's primary health care system and the health of its people.

*Acknowledgments:* Financial support for the projects brought together under the name of the Vietnam Family Medicine Development Project was provided by the China Medical Board of New York, Inc, Chevron Foundation, Atlantic Philanthropies, and the New York Life Foundation.

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