# Preparing the Personal Physician for Practice ($P^4$): Residency Training in Family Medicine for the Future

*Alan K. David, MD*

## Background

### *Historical Roots*

When Family Medicine became a specialty in 1969, residency training was established as being 3 years in duration based largely on 2 significant reports, both commissioned by the American Medical Association Council on Medical Education and published in 1966. The Millis Commission Report[1] focused on the discipline of family practice and made the following observations:

> "The result of these educational changes should be a growing core of physicians who qualitatively are the peers of their classmates who chose surgery or some other specialty. The difference will be in the form rather than the level of practice and responsibility. Having a breadth of medical interest they will normally be the first professional contact for a new patient and the continuing point of contact for an old one. To a greater extent than their more narrowly specialized colleagues, they will be diagnosticians and medical coordinators to whom the primary question will not be 'what can I personally do to be the most help to this patient' but 'what can I do and what can I arrange to be done by others that will be of most help to this patient.'"

Furthermore, this report elucidated the following:

> "There is no reason to expect that all primary care physicians will be identical in training or interests, those that feel so inclined can provide comprehensive care to their own patients and offer more specialized services to others. Thus, one physician may be the groups' expert on gastrointestinal problems and another be the expert on virology. Depending on the size of the group and the interest of its members there will be room for a reasonable range of variation among those rendering comprehensive care."

These statements are revealing and obviously visionary as the process, content, and competencies that are needed to prepare family medicine residents to function in the future are debated.

The Willard Report[2] focused more on the definitions of family medicine and the educational program itself. Some of its memorable statements are: "The program should be kept flexible in order that it might be tailored to the person's background, future need, and level of progress." Also, "a satisfactory program for family practice will generally require 3 to 4 years after medical school, the exact time may vary with the organization, program and individual trainees particular needs."

Furthermore: "generally speaking about half the time of the basic integrated program should be devoted to training in the setting of an appropriate model of practice. The program should provide understanding of research and methodology into problems relating to the delivery of health service."

These 2 reports are remarkable in their breadth, content, scope, and visionary perspective. They shaped the discipline then and should still influence it today as educational programs undergo change.

This article was externally peer reviewed.
*Submitted* 23 March 2007; revised 1 May 2007; accepted 1 May 2007.
*From* the Department of Family and Community Medicine, Medical College of Wisconsin, Milwaukee.
*Funding:* The preparation of this manuscript was done at the request of the $P^4$ Steering Committee and the author received a modest honorarium from $P^4$ funds.
*Conflict of interest:* This manuscript was produced at the request of the $P^4$ Steering Committee and the author received a modest honorarium.
*Corresponding author:* Alan K. David, MD, Department of Family and Community Medicine, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53226.
The URL for the $P^4$ project is: http://www.transformed.com//p4.cfm.

Most importantly, they reflect a conceptual openness about flexibility in training that seems to have been lost. Our thinking seems to have ossified around 3 years of training as well as documentation of numerical requirements dictated by the Residency Review Committee (RRC). Flexibility and innovation *are* an historical foundation of the discipline.

### *Role of RRC*

As a result of the creation of residency training programs, the RRC for Family Practice came into existence. The first iterations of the criteria for an accredited program were defined in 2 type-written pages whereas the current iteration of the RRC Criteria for Accreditation in Family Medicine comprises 40 pages.[3,4] The latest iteration defines not only the principles of family medicine but is organizationally definitive and educational content prescriptive. Many in the discipline see the RRC as an impediment to change and innovation, whereas it is clear to others that the role of the RRC is that of an accrediting agency. It revises its requirements to meet the changing scope and definitions of practice, but it has never been a leader in innovation in Family Medicine. It maybe inappropriate for the rest of the discipline to expect the RRC to fulfill the innovative role. Accrediting bodies certify whether a program meets the minimum standard criteria. They outline what a program needs to do to improve, rectify, or upgrade to meet those criteria. The RRC does seem willing to allow experimentation, but its ability to be flexible is questionable because it insists that all the usual criteria must be met for a fully accredited residency before innovation can occur. This limits real flexibility and innovation.

### *Role of the Residency Assistance Program (RAP)*

The RAP was formed in 1979 as a way of increasing the quality and the excellence of family medicine training programs by providing consultation services based on a set of criteria that would raise the bar for family medicine residency training programs. There have been 6 editions of these criteria.[5] Most programs that obtained RAP Consultations in the past did so to prepare for a RRC accreditation visit or to get an outside opinion to solve a significant problem. The RAP criteria have been used as a means of moving the discipline forward in terms of innovation and expertise. However, because the RAP criteria have no direct accrediting influence, their ability to influence the discipline has been mixed. The current sixth edition of the RAP Criteria outlines significant changes in family medicine residency education. They describe flexible maternity care training by outlining 3 different levels of intensity; they define criteria for an expanded training program of 4 years; and they outline expectations of innovative programs. Most significantly, these criteria call for programs in which there would be no preset quantitative curricular requirement defined by block rotations or hours. Programs would be encouraged to develop specific measurable learner competencies and to adjust curricular time with maximum flexibility to respond to resident competencies and deficiencies. This concept is one that must be embraced, developed, and evaluated if family medicine residency training is to progress.

### *Future of General Internal Medicine*

In 2003, a task force of the Society General Internal Medicine submitted a report defining and promoting the field of general internal medicine.[6] Some of their most interesting observations and recommendations included the following: "Primary care is not the same as general internal medicine . . . most family medicine physicians do primary care most of the time, general internists do . . . primary care, but uncomplicated routine primary care can seem almost incidental."

"Paradoxically the notion of a well rounded physician who can independently care for all types of patients, referring only a small fraction of cases to specialists is obsolete." Most interestingly and relevant to us in Family Medicine is that they identified that "lack of mastery has been linked to low professional self-esteem and the current system of generalists as gatekeepers may have contributed to the declining autonomy and professional satisfaction." To combat this, they suggested "to create a field of interest in a fourth year spent tracking areas of interest would be intended to provide improved mastery in outpatient medicine or in a field of special expertise. For many people it would lead to a certificate of added qualifications (CAQ) or its equivalent to certify mastery in a generalist area."

This report raised much controversy within the field of general internal medicine. More recently, the Association of Program Directors in Internal Medicine published a position paper in which they reaffirmed the need for a 3-year curriculum in residency training in general internal medicine to

"ensure broad competencies for internists."[7] However, they did specify that the 3-year curriculum should be redesigned with specific educational goals for each year:

> "The third year of training should be redesigned and tailored to match the residents career plans. The curriculum can emphasize hospital, ambulatory, or specialty experiences or a combination of these elements, depending on the resident's goal. The third year should focus on building leadership skills and understanding how to provide safe, efficient, and cost-effective care in an increasingly complex environment. Residents in collaboration with attendings should become leaders of multidisciplinary teams that include less experienced residents, students, and other health care professionals . . ."

Obviously general internal medicine has backed away from the concept of 4 years of training but has remained conceptually interested in individually tailored third-year experiences. This new report does *not* emphasize the concept of mastery elucidated in 2003. Anecdotal comments from leaders in internal medicine training suggest that very few residents entering categorical internal medicine residency programs intend to practice general internal medicine. Some people think that 80% to 90% of residents will seek further subspecialty training in fellowships. General internal medicine training seems to be either static or perhaps ossified. This provides both a dilemma and an opportunity for family medicine.

### *Future of Family Medicine (FFM) Report*

The organizations comprising family medicine collaborated in 2002 to generate a national study and report on the FFM.[8] That report elucidated many long-held values and defined in new terms many characteristics and concepts with regard to family medicine's past, present, and future. Specifically, FFM clearly identified that family physicians conceptually (1) engage in personal on-going healing relationships with their patients (2) in the context of a practice that offers a wide range of services, accessibility, and quality, (3) all which define a personal medical home best provided by competent family physicians; Task Force 2 of the FFM reported on residency education and made the following statement:

> "Innovation in family medicine residency programs will be supported by the RRC for family medicine through 5–10 years of curricular flexibility to permit active experimentation and ongoing critical evaluation of competency-based education, expanded training programs and other strategies to prepare graduates for the new model of family medicine. The discipline should actively experiment with four-year residency programs that include additional training to add value to the role of family medicine graduates in the community."

This is a mandate from the "family" for change that can invigorate the discipline and yet it recognizes the need to competently evaluate new directions.

### *Historical Summary*

When one reviews the supporting documents for family medicine, beginning with the Millis and Willard Reports and through the current iterations of the RRC requirements, the RAP Criteria for Excellence, and the RAP Report, it is clear that family medicine training must be kept flexible and innovative and be continually evaluated in a competency-based fashion to prepare graduates for the world of medicine that has changed rather significantly and drastically since the 1960s. The world will continue to evolve as we move forward into future medical practices in the next 10 to 20 years, which will not be the same as today. What follows from this historical background is an iteration of issues and concerns that must be dealt with as the discipline examines opportunities to innovate to move the educational process forward.

## Issues and Concerns

There are 5 major issues that are problematic for our discipline as it advances the education of future family physicians. Some would define these differently and they could be subdivided further, but this author has chosen to enumerate these 5 and discuss them in a concise but relevant fashion. They are:

- Decline in student interest in Family Medicine
- Cost of training family medicine residents
- Definition of the end product of the residency education process
- The changing world of medicine and medical practice
- The future health manpower needs of our society

### *Declining Student Interest in Family Medicine and Primary Care*

The height of interest in family medicine as a specialty for US senior medical students was in 1997 when more than 2340 US seniors chose family medicine positions in the National Resident Matching Program compared with the most recent 2006 National Resident Matching program match in which 1123 US senior medical students matched in a family medicine residency program.[9] This represents 8% of all US seniors compared with 12% to 14% of US seniors making this choice in the mid-1990s. Meanwhile, pediatrics has maintained a relatively constant US senior matriculation rate in the mid to upper 80% range, and internal medicine/pediatrics residencies have maintained a match rate of greater than 80% of US seniors throughout these years. The other discipline that has suffered in terms of the primary care interest has been general internal medicine, which has dropped significantly as has family medicine. There are numerous opinions as to why this phenomenon has occurred. Data from the Campos-Outcalt study[10] from the University of Arizona reveals student concerns about lifestyle, role models, mentors, indebtedness, and what they hear about family medicine from other specialties. Reimbursement of family physicians compared with other specialties is also an issue. Students also perceive family medicine as not being a research-oriented discipline. Although this attracts some students, it also turns off some of the brightest and the best. Students also do not see most family physicians in high-quality, new model practices as they experience family medicine in their educational rotations.

One of the most interesting factors that is not discussed very often is the number of slots available to medical student graduates. It is clear that it is a "buyers" market and that almost anyone who wants a family medicine residency program from a US medical school can get one with little difficulty. This leaves a perception that this is not a competitive specialty in high demand. In a recent survey report of Department of Family Medicine chairs, the question was asked, "Do they agree with a proposal to substantially reduce the number of family medicine residencies fitting slots to demand?" Sixty-six percent of those responding (82 department chairs) either agreed or definitely agreed, whereas 34% possibly disagreed or definitely disagreed (ADFM Chair Survey Results #1 Residency May 23, 2006 at adfmchairs@fammed.wisc.edu). Similar data are not available from program directors, but there might be a major difference in opinion. This is an issue for the discipline and must be strategically dealt with given recent recommendations that society needs more doctors.

Lastly, the vision and mission of family medicine is unclear to students today. It also may be unclear to many in the field. What *is* family medicine's role in providing health care to the citizens of this country? (This issue will be referred to again at the end of this article.)

### *Cost of Training Family Medicine Residents*

The cost of family medicine training is expensive primarily because of the requirement of standalone Family Practice Centers (FPCs). FPCs were originally designed to be practices for resident training and more recently have conceptually been seen as "practices with a residency." There is little cost data on training in other specialties. If the costs of resident usage of a radiology suite, resident uses of operating rooms, and resident uses of coronary care units and coronary angiography labs were calculated as part of the cost of that residency training, family medicine training might not be the highest costing residency program in the country. Recently, Judith Pauwels[11] published an updated study about the trends and costs of residency training in family medicine, comparing her 2000 data to newer 2003 data. She notes that the total cost per resident increased an average 25.8% during this 3-year period, with a median increase of 17.7%. Compared with 2000, reimbursement would have had to increase by 26% rather than its actual increase of 13.5% to compensate for this cost increase. Moreover, the total expense per resident was a median of $266,000 and a mean of $274,000. Thus, the *median* total cost for 6-6-6 residency would be a little over $4.6 million per year, and the *mean* cost for the same 6-6-6 residency would be over $4.9 million per year. When expense is compared with revenue, the average program runs at a direct expense versus revenue deficit of between $500,000 and $750,000. Residency programs have been closed regardless of their quality over the last 5 to 10 years often based on cost as well as mission and value changes within their supporting hospitals. Is this cost structure acceptable to our discipline? Are there methodologies and studies that ought to be undertaken to investigate how to train

family medicine residents less expensively without sacrificing quality of training?

### *What Is the End Product of Our Residency Training Program?*

The successful graduate of a family medicine residency program will have completed the program in 36 months; will not have failed any specific rotations; will have earned good evaluations on his block rotations and on the family medicine portions of training; and will have done well on the in-training examination. Across the country, there is consistency of training as dictated by the RRC, but there is a tremendous flexibility and inconsistency in the product that is produced. Less than 30% of family medicine residency graduates across the nation end up practicing obstetrics. Conversely, there are many programs that require 4 to 6 months of training in obstetrics with over 60% of those program graduates going on to practice obstetrics. All programs have requirements to train family medicine physicians in hospital medicine; yet the percentage of family physicians doing hospital medicine has gradually declined with the advent of hospitalists and pressures to be productive in office practice. How flexible can residency training become while still producing a consistently high-quality family doctor? Is the consistency to be defined by knowledge, skills and attitudes, certain skill sets and procedures, and test scores, or is the consistency a process-oriented phenomenon of how to approach patients, take care of patients over time, manage patients, and measure the quality of their care, etc? In essence, the consistent training program of today as dictated by the RRC still produces a very flexible product depending on the region, program resources, and interests of the residents and faculty in a particular program. Is this in the best interest of family medicine? Perhaps this question should be turned around—should there be flexibility of training after a base competency has been obtained so that the product is flexible in terms of practice character but so that the basic family medicine skills, knowledge, and attitudes have been competently taught, measured, and certified?

This question is relevant to the definition of family medicine. Is family medicine a content-based discipline comprising bits and pieces of adult medicine, pediatric medicine, maternal/childcare, procedures, subspecialties, outcomes research, behavioral medicine, and the like, or is it a process-oriented discipline about developing high-quality relationships with patients, becoming an expert at problem definition, problem prioritization, problem management, and helping patients manage and negotiate the health care system? Is it both? What are the basic competencies that all family medicine residents need to learn to be able to practice successfully? Until this question is answered, it is problematic as to whether any model of residency training will be able to successfully accomplish the goals set forth. The competencies and measures that every graduate is expected to demonstrate and that are able to be measured have not been well established in order for the discipline to confidently say to ourselves, the graduate, and to the American public, "this is a highly qualified family physician."

### *Changing World of Medicine*

Saultz and David[12] identified a number of educational issues in 2004 and more recently in RAP and Program Directors Workshop[13] presentations that make the current educational system suspect. Some of these issues are that in the past, medicine was more hospital based; emphasized high acuity over high prevalence; focused on the diagnostic treatment rather than the process of care; had a very flexible product with rigid education; focused on care for the underserved by residents; and prepared graduates primarily for small group practice. In today's world of medicine, the family physician functions predominantly in the office, with many turning hospital medicine over to a hospitalist service. Patients are becoming accustomed to going to the urgent care centers, walk-in clinics, and retail primary care clinics run by nurse practitioners or PAs, and trauma and emergencies are taken care of in emergency rooms. Family physician practices focus more on prevention, chronic disease management, and to some extent, behavioral aspects of patient care (although this has been relatively neglected in recent years of family medicine training), unless the practice is in a rural setting. Behavioral medicine has received less emphasis in residency training in the last 10 to 15 years despite the fact that family medicine is the only traditional medical discipline which requires that behavioral science faculty function as an integral part of the faculty of a residency training program. This is an issue that deserves more attention given the concept of providing a "medical" home for patients.

There seems to be a tremendous variation in what family medicine graduates end up doing. Those who are trained/practice in urban and suburban programs tend to practice where the focus is ambulatory and have very little to do with emergent care, hospital care, or major office procedures. Those who are trained/practice in mid- to smaller-sized communities (25,000–100,000) are more likely to engage in obstetrics, orthopedics, minor trauma, procedures, and sports medicine. Those trained/practice in smaller rural communities are much more likely to have taken the Advanced Trauma Life Support program, see patients in the emergency department, and are much more procedurally, trauma, and acute care focused. How do we train family medicine residents to have a defined base of common competency and yet be able to function well in different selective environments where there may be a need for trauma, obstetrics, orthopedics, etc, or in an environment where there is very little need for these skills because of the multiplicity of available specialists to handle these issues?

This raises the fundamental question: "What is the difference between the function of the family medicine *practice* that provides a comprehensive range of services versus the training and function of each individual family physician in that practice? What portion of practice services does the individual family physician provide for his/her patients?" The answer to this question is crucial to the flexibility of product versus the consistency of training question. Can a family physician be defined primarily in terms of process measures plus a base of knowledge, skills, and attitudes while not overly prescribing whether that person will have to be a family physician obstetrician, a family physician proceduralist, a family physician hospitalist, a family physician urgent care expert, a family physician sports medicine physician, a family physician geriatrician, etc, etc, etc?[13]

### *Health Manpower Issues for the Future*

In the last 2 years there has been continued publicity about the physician workforce. The Association of American Medical Colleges commented on the Council on Graduate Medical Education 16th Report that predicted physician shortages by stating this nation needs 20% more medical graduates per year.[14,15] This would be accomplished by increasing medical school class sizes and the number of medical schools. Cooper has been saying for 10 years or more that there is a shortage of specialists; that specialist training needs to be increased; and that numbers of medical school graduates needs to increase.[16] On the other hand, Barbara Starfield's work indicates that the greater the proportion of specialists in the physician population, the worse the health outcomes and the higher the costs.[17] Because there have been health manpower predictions over the last 20 years which have turned out to be inaccurate or significantly flawed, it is not surprising that the current call for increasing physician output and the numbers of physician specialists is being questioned by Phillips et al.[18] There are also anecdotal reports that institutions, hospitals, and practices are beginning to recruit more primary care physicians. What does this mean for family medicine?

Recently, a series of interim recommendations were published by the Citizens Health Care Working Group created by the Medicare Prescription Drug Improvement and Modernization Act of 2003 by Congress.[19] They provided a series of recommendations, some of which are:

- It should be public policy that all Americans have affordable health care.
- A core health care benefit package needs to be defined for all Americans.
- There should be a guaranteed financial protection against very high health care costs.
- There needs to be support for integrated community health networks.
- The system should promote efforts to improve quality care and efficiency, etc.

Given this interim task force report and recent calls by the Association of American Medical Colleges for increasing medical student enrollment by 20% and now 30%, there exists a window of opportunity for family medicine to begin to address some of these national concerns. In the optimism of managed care in the mid-1990s, family physicians were recognized as providing cost-efficient, high-quality care but the discipline succumbed to the allure of money and being liked and many became "bought out." Gatekeeping patients from seeing specialists is not the function of a family physician. Providing excellent care so that patients rarely need to see a specialist *is* the job of a competent family physician. That distinguishing characteristic must be made

clear and visible to insurers, colleagues, and to the public. Although it is not helpful to decide how many anesthesiologists, radiologists, otolaryngologists American society needs in the future, the discipline can determine how many family physicians need to be produced to meet the needs of the citizens of this country (especially in light of internal medicine's declining interest in primary care), what their capabilities should be, and how family medicine can facilitate the goals of the Citizens Health Care Working Group, which are very well aligned with the goals of the FFM. The question is: Will family medicine see this as a challenge and opportunity?

## Proposal—New Models of Education to Address the Future of Our Discipline

### *Introduction*

There are 3 fundamental issues that need to be addressed in designing and evaluating new models of residency education.

- First, how to teach the 3-part conceptualization of family medicine as identified in the FFM—ongoing healing relationships; a comprehensive practice that provides services; and the ideal medical home.
- Second, with the TransforMED plan of evolving family medicine practice toward the new model in operation, residency education should occur in a setting in which the practice is paramount in terms of its role and function for patients. The practice happens to have a residency program instead of a residency program that happens to operate a practice.
- Third, process education and content education must be identified and evaluated separately. It is one thing to have residents rotate through X number of months, weeks, or hours of orthopedics, dermatology, otolaryngology, maternity care, etc, and evaluating content in those areas pertinent to family medicine. It is a separate issue to define and evaluate the process skills of a competent family physician graduate such as communication skills; problem identification, prioritization, and management skills; as well as knowledge of populations and systems of practice.

With these 3 conceptual issues in mind, this author proposes 3 models of residency education that could be created, supported, and evaluated to determine which, if any, is best suited to meet the needs of residency graduates who will serve people in the future.

Two of these proposed models would be 4 years in length. There seems to be great controversy in the discipline about whether this is appropriate. The previously cited Association of Departments of Family Medicine Chairs survey posed another question regarding the length of training in which 48% "agreed" with a possible lengthening of residency training and 52% disagreed (ADFM Chair Survey Results #1 Residency May 23, 2006 at adfmchairs@fammed.wisc.edu). An article published in *Academic Medicine* in June 2006 by Victoria Maizes[20] and others entitled "The Integrated Family Medicine Program: Innovation in Residency Education" describe a 4-year program in family and integrative medicine in which the preliminary data suggests that the program enhances interest among graduating medical students in family medicine training. This program relies on learning modules via the Internet and involves 6 different family medicine residency programs throughout the country. It weaves together family medicine training with an integrative medicine curriculum and embraces characteristics of the new model of family medicine. Smits et al[21] surveyed resident applicants to the Oregon residency programs and found that lengthening training to 4 years would have a *neutral* or *positive* effect on interest in family medicine training. Lastly, in an article in press in *Family Medicine* from the University of Arizona Family Medicine Residency Program,[22] 3 4-year options were created: sports medicine, integrative medicine, and earning a master's degree in public health. They report an increase in the overall number of applicants to their program; greater success in filling their applicant pool with high-quality candidates; and greater success in matching with their top 10 or 20 ranked candidates. This suggests that 4 years of training may be acceptable and desirable. The skeptics are more likely to be found in the ranks of chairs and perhaps program directors.

### *Models*

#### *Organizational*

This author proposes that 4 to 6 programs in each category be selected in response to a national RFP based on track record, resources, and written proposals. Applicants should provide acceptable guide-

lines for curriculum and a competency-based evaluation system and should be able to identify process distinctly from content in their teaching and evaluative processes. Long-term evaluation of graduates should occur for 2 to 5 years post-residency to evaluate the impact of this training.

### *Conceptual Models*

*Four-Year Differentiated Model of Family Medicine Training* The first 3 years of residency training would be fairly traditional, using the concepts previously outlined to teach the basic principles of family medicine; block rotations would be minimized to 12 to 16 months and the content of family medicine would be taught in a new model-oriented practice (probably FPC) that is devoted primarily to serving patients. The fourth year would provide options for additional training in areas of strength that the program has already developed such as maternity care, hospitalist medicine, urgent care, sports medicine, geriatrics, etc. No one program should offer more than 2 of these options to provide sufficient depth of resources—patients, faculty expertise, and outstanding clinical experiences—to accomplish these fourth year training goals. Forty to 50 percent of the time in the fourth year should be spent in the family medicine practice that continues the content and process development of these fourth-year residents.

*Four-Year Advanced Family Medicine Model* This model would have a similar initial 3-year curriculum in which competencies are measured and minimization of block rotations would be the rule. Basic RRC requirements would be primarily met through longitudinal rotations taught as much as possible by family medicine physicians with appropriate expertise. The Advanced Model would focus on advanced training in epidemiology and population medicine through 2 mechanisms: (1) though obtaining an MPH degree—starting in year 2 and finishing in the fourth year; or (2) through a program unable to offer an MPH that has a curriculum in comprehensive care of populations; basic epidemiology and new model of care implementation would need to be developed. The population and the practice would be the focus of care and study. How physicians spend time—whether in teams, managing patients by phone, e-mail, or groups—and further refining the new model practice of family medicine would be key. Either of these mechanisms would be designed to produce the medical directors, program leaders, and care leaders of the future.

*Three-Year Differentiated Model* In this model, the traditional 3-year program would be significantly altered as there would be *no training in a traditional FPC*. The residents would be placed in real practices with real physicians who are making a living by caring for the patients in that practice. This is intended to address the high cost of training and would require that cost evaluation be part of this model as well as the other 2 models. The core curriculum would be reduced to a minimum of 12 months of block rotations. Obstetrics, if not a major priority of the program, would be reduced to only a 2-month block rotation. Twenty to 24 months of the remaining curricular time would be spent in longitudinal learning experiences and in developing a defined skill set with a 4- to 6-month track in an area such as maternity care, hospitalist care, urgent care, geriatrics, etc. Thus, it would differ from the 4-year model by significantly reducing the core rotations found in 3-year programs to 12 months, would reduce costs by eliminating the FPC, and would have to be able to provide resources and experiences to develop differentiated skills in the remaining 24 months. Some funds would be required to offset educational costs at each private practice, where at least 3 residents would be in place. A core faculty would still be essential.

### *Evaluation*

Each of these proposed models would be required to have a content and process evaluation and follow-up plan. Content evaluation could occur through an assessment of fundamental knowledge at the time of entry into the program based on the following: an in-training assessment examination, behavioral skill set, video observations, and problem-based learning exercises. Residents would be evaluated at least yearly on progress made in these fundamentals. There would also need to be a process evaluation for each of these program models. Process evaluation would consist of evaluating the resident's doctor–patient relationship building skills and the resident's ability to develop (for complex patients) pertinent problems lists, to prioritize these lists, and to develop management plans for each. Understanding systems in the management of patients, diseases, and populations would be key. The details of this evaluation process can best be sorted out by evaluation content and process ex-

**Table 1. New Educational Models**

| New Training Models | Major Characteristics | Issues Addressed | | | | | |
|---|---|---|---|---|---|---|---|
| | | Declining Student Interest | Cost of Training | Competencies | Defined End Product | Changing Medical Practice | Health Manpower Needs |
| 4-Year Differential Model | • 12 to 16 months of block rotations (maximum)<br>• Longitudinal learning where feasible<br>• New model FPC<br>• Fourth year: 50% to 60% time in focused area—OB, sports, UC, geriatrics, etc (limit of 2 per program) | +3 | −1 | +4 | +3 | +2 | +2 |
| 4-Year Advanced Model | • 12 to 16 months of block rotations (maximum)<br>• Longitudinal learning emphasized<br>• New model FPC<br>• Advanced training: fourth-year MPH (begin in second year and finish in fourth year) OR curriculum in population medicine and medical administration/leadership | +3 | −1 | +3 | +3 | +4 | +2 |
| 3-Year Differential Model | • 12 months of block rotations (maximum)<br>• OB for 2 months, block only, if desired<br>• No traditional FPC practice teams of residents/faculty in real practices<br>• Tracks in third year are 4 to 6 months long: OB/geriatrics/UC/ hospitalist medicine | +2 | +3 | +2 | +2 | +2 | +2 |

FPC, Family Practice Center; OB, obstetrics; UC, urgent care. 0, no effect on the issue; −4 to 0 to +4, increasing positive effect on issue

perts. However, all 3 models must evaluate each matriculant at program entry and at regularly defined intervals. It is only through such a definitive process that the training of family medicine physicians can be advanced in a more successful, knowledgeable, and competent manner. Table 1 summarizes these models and their likely effect on issues and concerns previously enumerated.

## Summary

This author alluded earlier in this article to a desired national vision and mission for family medicine that might facilitate attracting the brightest and best into the discipline. A process-oriented *definition of family medicine* might be worded as follows:

Family physicians focus on building doctor-patient relationships over time that allow them to define and prioritize patients' problems to formulate diagnoses and management plans that meet patients' needs. The knowledge, skills, and attitudes required to develop this expertise are not limited by a specific disease, organ system, age, or setting of the patient. Family physicians provide multidimensional accessibility, have a natural command of complexity, and humanize the health care experience in an environment emphasizing up-to-date information access and quality care. Family physicians provide a personal medical home for their patients.

If the discipline is to succeed, it is imperative that a vision be clearly articulated. It must be succinct, future-oriented, and be easily remembered to be transmitted to our learners. Such a vision might read as follows.

### *Vision*

Every American should have access to a personal medical home provided by a competent family physician.

***Mission***

We believe that increasing the number of students and residents going into family medicine and that supporting practicing family physicians is critical to the nation's health care because family medicine

- is applicable to all people regardless of age, sex, race, or presenting complaint;
- emphasizes the biopsychosocial model of care to create superb doctor–patient relationships;
- is a process-oriented discipline that emphasizes evidence-based medicine and high-quality care;
- and is the ideal medical home for most patients.

Given the lack of creativity recently elucidated in the article by the program directors in internal medicine; given the Citizens Health Care Working Group call for health care for all Americans; and given the call for increasing the number of physicians, this is an opportune time for family medicine to create new models of training and to define its role in competently meeting the nation's health care needs—both now and in the future.

## References


1. Millis JS, Wiggins WS, Wolfle D, et al. The graduate education of the physicians: the report of the Citizens Commission on Graduate Medical Education. Chicago (IL): American Medical Association; 1966.
2. Willard WA, Johnson AN, Wilson VE, et al. Meeting the challenge of family practice. Report of the Ad Hoc Committee on Education for Family Practice of the Council on Medical Education. Chicago (IL): American Medical Association; 1966.
3. Pugno P, Epperly TD. Residency Review Committee for Family Medicine: an analysis of program citations. Fam Med 2005;37(3):174–7.
4. Accrediation Council for Graduate Medical Education. Program requirements for graduate medical education. 2006 [cited 2006 Jul 15]. Available from: http://www.acgme.org/acWebsite/downloads/RRC_progReq/120pr706.pdf.
5. American Academy of Family Physicians. The Residency Assistance Program—criteria for excellence. 6th ed. Leawood (KS): RAP Project Board; 2006.
6. Task Force on the Domain of General Internal Medicine. The future of general internal medicine. Washington, DC: Society of General Internal Medicine; 2003. Available from: www.sgim.org/futureofGIMreport.cfm.
7. Fitzgibbons JP, Bordley DR, Berkowitz LR, Miller BW, Henderson MC. Redesigning residency education in internal medicine: a position paper from the Association of Program Directors in Internal Medicine. Ann Intern Med 2005;144:920–6.
8. Martin JC, Avant RF, Bowman MA, et al. Future of Family Medicine: collaborative project of the family medicine community. Ann Fam Med 2004;2 Suppl 1;S3–32.
9. American Academy of Family Physicians (AAFP). Division of Medical Education. 2006 Match Summary and Analysis. Leawood (KS): AAFP; 2006 March 16.
10. Campos-Outcalt D, Senf J, Kotolo R. A comparison of primary care graduates from schools with increasing production of family physicians to those from schools with decreasing production. Fam Med 2004; 36:260–4.
11. Pauwels J, Oliveira A. Three-year trends in the costs of residency training in family medicine. Fam Med 2006;38(6):408–15.
12. Saultz JW, David AK. Is it time for a 4-year family medicine residency? Fam Med 2004;36(5):363–6.
13. Saultz JW, David AK. Creating new residency models: balancing tradition and innovation. RAP Workshop. 2006 Apr 13; Kansas City, MO.
14. Association of American Medical Colleges. COGME report predicts physician shortage. AAMC Reporter. 2004 Nov: 1.
15. Salsberg E. Legislative Hearing on H.R. 4997: "Physicians for Underserved Areas Act": Hearing Before the Subcomm. on Immigration, Border Security, and Claims of the House Comm on the Judiciary, 109th Cong., 2nd Sess. (May 18, 2006). Available from: http://www.aamc.org/advocacy/library/workforce/testimony/2006/051806.pdf.
16. Cooper RA. There's a shortage of specialists: is anyone listening? Acad Med 2002;77(8):761–6.
17. Starfield B, Shi L, Grover A, Macinko J. The effects of specialist supply on Populations' health: assessing the evidence. Health Aff (Millwood) 2005;W5:97–107.
18. Phillips RL, Dodoo MS, Green LA. Adding more specialists is not likely to improve population health: is anybody listening? Health Aff 2005;W5:111–4.
19. Citizens Health Care Working Group. Interim recommendations. 2006 June 1 [cited 2006 June 1]. Available from: www.CitizensHealthCare.gov.
20. Maizes V, Silverman H, Lebensohn P, et al. The integrative family medicine program: an innovation in residency education. Acad Med 2006; 812(6):583–9.
21. Smits AK, Walsh E, Ross RG, Gillanders WR, Saultz JW. Residency applicants perspectives on family medicine residency training length. Fam Med 2006;38:172–6.
22. Lebensohn P, Copos-Outcalt D, Senf J, Pugno P. Experience with a four-year residency: the University of Arizona family medicine residency. Fam Med. In press.