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Crisis

Solution

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Cover photos and graphics on page one done by Pam Carter, U of L Trover Campus, Madisonville, with thanks to Jessica and Joleigh Clark. The Trover Rural Pathways students (pre-med and preclinical) proudly wear their green PSST shirts as they prepare to provide free physical exams for sixth- graders in McLean County.

KAFP JOURNAL

The Kentucky Academy of Family Physicians

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CRISIS!

It is unlikely that other primary care specialties will significantly impact rural primary care physician shortages, since relatively few general pediatricians, general internists and obstetrician-gynecologists enter practice in rural areas.
KIOM Report 2007

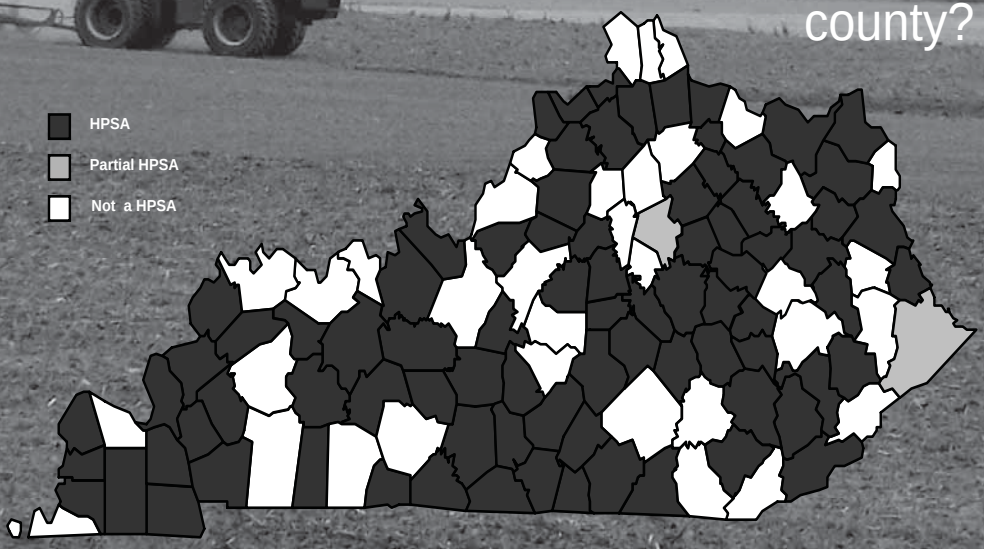
It stands to reason that as medical education costs increase, so does student debt, a factor that is cited in many students' decisions to select specialties more lucrative than family practice.

Student interest in family medicine at Kentucky's medical schools and many others across the country has waned in recent years, as has the number of residency positions.

Without more Family Doctors, what will happen to your county?

What can you do?
Medical educators and policy makers can have the greatest impact on the supply and retention of rural primary care physicians by designing programs that increase the number of qualified medical school matriculants with background and career plans that are independently related to career goals.

Rabinowitz,2001 JAMA



Kentucky Primary Care Health Professions Shortage Areas With ALL Family Physicians Removed

Bottom Line = Get more rural students into medical school and support them with residency programs and then loan forgiveness when they enter rural practice.

by A. Stevens Wrightson, MD

Professionalism

One of the buzzwords in medical education these days is "professionalism." In fact, the Accreditation Council for Graduate Medical Education (ACGME) has listed professionalism as one of its six general competency areas, along with patient care, medical knowledge, interpersonal and communication skills, practice-based learning and improvement, and systems-based practice. As with all the competency areas, professionalism encompasses a broad spectrum of behaviors, attitudes, and skills.

As defined by the ACGME, professionalism is "manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population." Further description states that a physician exhibits professionalism when she/he:

- Demonstrates respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development

- Demonstrates a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices

- Demonstrates sensitivity and responsiveness to patients' culture, age, gender, and disabilities[1]

When this language was first introduced, one of the questions my colleagues and I asked ourselves was, "Can you train someone to behave professionally?" Certainly we can provide the theory surrounding medical ethics and teach communication skills that allow for a better connection with patients of different cultures or abilities, but what about the respect, compassion, integrity and selflessness that is described in the first bullet? Are not those character traits that are ingrained in an individual well before matriculation in medical school? Will not a student who is honest, accountable, altruistic, and sensitive remain that way throughout medical school and residency? Shouldn't we spend our efforts on choosing the right student for medical school and then professionalism will come as a matter of course? After all, Medicare fraud does not exist in my clinic. The Stark and HIPAA laws were not designed with my medical community in mind. Medical errors only happen in big teaching hospitals. But much to our surprise, I think the more closely we looked, the more apparent it was that many of us, not only the medical students, could benefit from paying some attention to professionalism training.

That being said, requirements have been written that say a formal education in professionalism must occur in residency and is likewise being pushed for medical school. As a result, curricula on professionalism are springing up across the country. The ACGME has published a booklet with tools to teach and evaluate professionalism, including a "360 evaluation" developed and validated by medical educators at the University of Kentucky.[2 3] Medical students and residents are implicitly or explicitly receiving training in professionalism throughout their 7 to 10 years or more of training.

So why have I included this educational innovation in this edition of the Kentucky Academy of Family Physician journal? How is professionalism and workforce related? I have often thought,

and a few times said, that the practice of Family Medicine is a vocation. What I mean by that is that it is more than a career choice; it is a "calling." I, of course, recognize that other fields in medicine are equally service driven: primary care medicine and pediatrics, nursing, midwifery, and particularly, rural practice in any of dozens of healthcare fields. We are bombarded with information that tells us that the state of health in our country is linked to the provision of primary care services, and yet we again are facing a crisis in that too often, the needs of the rural and underserved parts of our state are not being met.

We, in Kentucky, are fortunate to have the force of selfless practitioners who now care for those most in need. I am certain the hours are long, the family time is lessened, and fatigue and burnout are ever threatening at the door. But as with anyone called to service, satisfaction extends beyond financial and personal gains. Those individuals, many of whom are reading this journal, are committed to their community. They have respect and compassion for all they see. They have responded to their patients' needs selflessly and have thus been a role model for others in the profession.

During a recent interview with a medical student, the young man offered me his thoughts on professionalism. To paraphrase, he said he really enjoyed his rural rotation. He was particularly impressed with the way his attending physician interacted with his colleagues, always with respect and with the patient's best interest in mind. Unfortunately, from this medical student, this had not always been his experience during medical school. Too often he had been exposed to disparaging remarks from senior residents and attendings concerning patients and other physicians. Though not the dominant behavior during his training, it was unfortunate that this unprofessional behavior occurred at all at the site where he received most of his medical training.

In an era when personal gain and immediate satisfaction hold supreme, it may be difficult to continue to develop physicians who demonstrate the professional behaviors to the degree of their predecessors. Those physicians are still practicing, however, in Louisville, in Bowling Green, in Olive Hill. Those physicians are working long hours, seeing all that come to the office that day, ending their day with a home visit or two. And in many parts of our state, they see the poor and uninsured patients, doing the best they can for them despite limited resources. That is what draws some of us to organized medicine. How can we provide for those in need? That is how some of us demonstrate accountability and responsiveness to our patients, despite their gender, age, beliefs and financial resources. Maybe that is too much to ask, though those of you in community health centers, free clinics, mission and church-based clinics, have chosen to be accountable at the highest level.

I do feel, we in the profession of Family Medicine, need to encourage our youth, meaning middle and high schoolers, as well as college and medical students, to look at the profession of medicine, particularly as an opportunity to serve their community. We need to encourage medical students to "hold the course" if entry into medical school was because they wanted to pursue primary care. And as current banner holders of the profession, we need to be vigilant of our designation as role models to our patients, colleagues, and especially medical students and residents. Man, this is harder than I thought it would be when I applied to the University of Kentucky in 1981. But when it is right, you feel it is right, to your core.

1 Accessed at http://www.acgme.org/outcome/comp/compMin.asp on 11/28/2007

2 Accessed at http://www.acgme.org/outcome/implement/Profm_resource.pdf on 11/28/2007

3 Music, DW, McDowell SM, Clark N, et al. Pilot study of a 360-degree assessment for physical medicine and rehabilitation residency programs. *American Journal of Physical Medicine and Rehabilitation* 2003; 82:394-402.

A Rural Family Physician's Journey

By Sarah I. Little, M.D.

Sarah I. Little, MD is employed by Saint Joseph Healthcare, Inc. in a group Family Medicine practice in Berea, KY. Dr. Little graduated from U of L's School of Medicine then completed residency in Family Medicine at AnMed Health in Anderson, SC.

Up the hospital stairwell, my beeper echoed like underwater sonar reminding me once again of patients waiting to be seen in the office. I had spent longer than anticipated stabilizing a patient with severe pancreatitis. He needed transfer to Lexington for more intensive care. It was for a good cause, but at 8:45 am I was already running behind.

What would I find behind closed doors today? I had learned to expect an array of ages and problems. The schedule included a six month old with fever, an asthmatic teenager for a sports physical, a depressed housewife admitting she is a victim of domestic abuse, and an elderly diabetic gentleman with OA of the knee (who by the way has a funny mole he wants removed). Of course time had to be taken for catching up on family news, viewing photos of grandchildren, and giving my opinion on the local politics. Once again I questioned my sanity in choosing the field of family medicine and once again I was thankful for such variety in my daily routine. I pleasantly recalled the "why" and "how" of my arrival in Berea, Ky. as a young but enthusiastic family practitioner.

Choosing a rural practice site as a new physician seemed like a logical choice. Where else could I practice the scope of family medicine so fully? I will admit that I was biased. I have always loved small communities: less traffic, friendly people, great places to raise children. But what made me so sure that practicing in a town of less than 15,000 would be professionally rewarding as well?

After completing my undergraduate studies at Asbury College, I chose University of Louisville as my medical training ground. I did not know at that time the school had a rural campus in Madisonville, Ky., through what is now Trover Health System, and that clinical years could be completed there. During my first year I learned of an opportunity to participate in the Preclinical Program offered on the Trover campus. It was this program that introduced me to my first "rural family doc," Bill Crump, and the concept of community health assessment. During my second year I took the Rural Medicine elective delving further into issues of rural community health. By that time I was hooked.

Much to the dismay of several classmates who thought I was "throwing away my future," I chose to complete my clinical years at the Trover Campus. What an experience the next two years brought! I am sure many of my experiences were similar to that of classmates in Louisville. But I know there were some critical differences.

On most rotations I was taught one-on-one by Trover faculty. (Occasionally there was a family medicine resident.) I was a vital part of the healthcare team. I scrubbed in on every surgery, doing much more than just holding retractors. I will never forget assisting with a skin graft on a breast cancer patient status post radical mastectomy. In outpatient clinics, hospital wards, and the inpatient psychiatry unit, I was the initial interviewer and examiner of patients. I delivered babies with midwives, family physicians, and obstetricians. I performed circumcisions. I rotated with family physicians in outlying rural communities often performing outpatient procedures. I became a health educator. Many patients claimed me, the student, as their doctor.

Perhaps more importantly, I became a part of my patients' community. My husband and I had moved to the area. We attended a local church. We participated in town events, exercised at the local park, and, of course, did our shopping at Wal-Mart. I came to understand the community concern for methamphetamine

abuse, high rates of cancer, and the unemployment rate. My patients had become my neighbors.

This fusion of clinical diversity and community involvement became a passion. Resolute, I chose family medicine and an unopposed residency program in Anderson, SC. There I received excellent, broad clinical training and support for my desire to practice in a small town. I had little difficulty stepping into the multifaceted role of a resident physician. My confidence and competence were greatly due to the environment in which I trained during medical school. Much to the disappointment of my program director, I chose a small town in Kentucky rather than in South Carolina in which to begin the "real" journey of a physician…life after residency.

Entering this "real world" in the small town of Berea brought surprises as well as reassurances. The old adage "news travels fast in a small town" is so very true, and reputation is everything. Building my practice has required getting the right people to tell the right people. I have a greater sense of independence. I now spend much more of my time in the outpatient setting but must remain current on inpatient care. Acuity of illness respects no demographic. The local hospital is much smaller than I anticipated. It provides excellent care but has somewhat limited resources. I also maintain a tenuous balance between the demands of my career and those of motherhood. I have had to adjust to how available I am in the community. Nonetheless, my "doctoring" occurs in multiple places including Wal-Mart, church, the post-office, and even the local pizza parlor.

I firmly believe that my involvement in Rural Medical Training in medical school and residency (as well as my own preferences) led me to choose the specialty of family medicine and a rural practice setting. Rural training, if of broad scope and excellent quality, provides unexpected competency, encourages community involvement, illuminates community and thereby patient concerns, and creates the desire in young physicians to live and practice in the areas of greatest need. Again, where else can one experience the scope of family medicine so fully?

But I warn you, it is not for the faint of heart.

Sarah I. Little, MD with her family (sons Jonathan and Benjamin and husband Skip) outside Ft. Boonesborough, October 2007.

Family Physician's View of the Kentucky Institute of Medicine Report

by William L. Melahn, M.D. F.A.A.F.P.

William L. Melahn, MD, FAAFP is originally from Lawrence, Massachusetts and is a graduate of Fairfield University and the Georgetown University School of Medicine. He completed his residency in Family Medicine at Lancaster General Hospital in Lancaster, Pennsylvania in 1997 and entered practice in rural Eastern Kentucky as a National Health Service Corps Scholar. He is currently the site director of the University of Kentucky Family and Community Medicine Rural Training Track residency at St. Claire Regional Medical Center in Morehead, Kentucky and is Medical Director of Student Health Services at Morehead State University. In 2004 he was a winner of an AAFP Foundation/Pfizer Teacher Development Award. His interests include maternity care, rural collaborative practice, and medical informatics.

"The Health of Kentucky, A County Assessment," published in the summer of 2007, described the health status of Kentucky's 120 counties. In it, its co-chairs, Drs. Emery Wilson and Raymond Wells, and the Kentucky Institute of Medicine (KIOM) task force members, laid the foundation for the development of a long term strategic plan to improve the health of Kentuckians[1]. As a rural family physician and residency educator, I see the KIOM report as identifying rural access issues that I face every day in practice. Most significantly, we struggle with the costs of training rural family doctors here in Morehead as the level of support received does not cover our expenses.

Making a commitment to training rural family doctors for Kentucky is the most cost-effective long-term strategy to improve health outcomes in the state. This is because wherever health inequalities are most severe, family physicians have the greatest positive impact.

In general, the addition of one family physician for every 10,000 citizens will decrease the mortality rate by between 3% and 10%. In counties where there is high income inequality, the mortality rate from all causes drops by a stunning 17% when there is adequate primary care resources. [2] Kentucky's poorest counties are rural. In contrast, when primary care resources are low, the mortality actually increases! The Kentucky Institute of Medicine report on the Health of Kentucky clearly shows that the least healthy regions of the state are its poorest and most rural. Rural family doctors can save lives.

Low birth weight infants represent a significant social and economic burden, which in part may be reduced by simply providing primary health care nearby. Nationally, the rate of low birth weight infants is the lowest in areas served by rural health centers, which are almost invariably staffed by family physicians. The rate of low birth weight infants drops by 6% compared with non-primary care oriented healthcare delivery systems. Rural family doctors can reduce low birth weight incidence.

The rate of deaths from colorectal cancer in the Commonwealth are exceedingly high, with all but 5 of the state's 120 counties having rates of death higher than the national average.[1] Family physician supply greater than 40% of the total physicians correlates with an Odds Ratio of <1.0 for late stage diagnosis of colorectal cancer. In other words, having a higher proportion of family physicians in a community can lower the rate of death from colon cancer. Increasing specialty physician supply does not lower the odds. Rural family physicians can reduce the burden of death from colon cancer.[3]

Family physicians are good for the local economy as well, with every family doctor generating an average of $878,000 in economic activity each year they practice. They produce other economic benefits in addition to the health care services they provide by creating employment, purchasing goods, and by preventing the out flux of such expenditures, as they

are very likely to live in the areas they serve, and thus make and spend their income locally.[4]

An orientation to primary care reduces socio-economic disparities in healthcare, both in terms of access and in terms of population health,[2] disparities which, according to the Kentucky Institute of Medicine report disproportionally affect rural Kentuckians.[1] Additionally, adults with a primary care physician rather than a specialist as a personal doctor had 1/3 lower costs of care with 19% lower mortality.[5]

How should we improve access to appropriate primary care to rural Kentuckians? One way is to provide enough resources to the development and retention of family physicians. The Kentucky Institute of Medicine issued their report on the state's physician workforce shortfall which presents several challenges to our policymakers and educators.[6] According to the report, there are significant physician supply challenges in all areas of the state with rural areas being particularly challenged, both in total numbers of physicians on hand as well as in specialty distributions.

At St. Claire Regional, family medicine, specialty medicine, and certified nurse midwifery collaborate in a Rural Training Track with the University of Kentucky graduating two rural family doctors every year. The residency practice provides highly effective care including prenatal and delivery care with a 12 to 13% caesarean section rate. Other rural training programs in Kentucky are located in Hazard, Glasgow, and Madisonville. Seventy-six percent of rural training track graduates practice in rural America, making them the most effective strategy for increasing the rural family physician supply in Kentucky.[7]

Increasing the supply of rural family physicians in the state will help in the provision of health services in our communities. However, talking about access is not enough. We must talk about access to comprehensive healthcare which reduces morbidity and mortality, improves the quality of the lives of our patients, and is cost-effective for our community and our state. In rural areas, family physicians are the dominant source of this care.[8]

In view of the Kentucky Institute of Medicine report, legislators should strongly consider significantly increasing direct state funding to our rural training programs in Family Medicine as a cost-effective, life saving, and positive economic measure. Certainly the legacy of such sponsorship will be celebrated by the Commonwealth's healthier citizens.

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3. Roetzheim, R.G., *The effects of physician supply on the early detection of colorectal cancer.* Journal of Family Practice, 1999. **48**(11): p. 850-8.
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Who will care for Kentucky?
The Kentucky IOM Workforce Report

by Michael King, M.D.

Michael King, M.D., is an Assistant Professor of medicine in the Department of Family and Community Medicine, University of Kentucky in Lexington. A native of Russellville, Kentucky, he completed his medical training and family medicine residency at the University of Kentucky. Dr. King did a faculty development fellowship with Kevin Pearce, M.D., MPH, in the College of Public Health in Lexington. He has served on several national committees through the AAFP as a medical student, resident and Family Medicine faculty.

Similar to many states and the nation as a whole, Kentucky's healthcare system is experiencing significant strain and is facing worsening physician shortages that will adversely affect patients and their access to care. Kentucky's decades of physician shortages, especially in rural areas, along with its citizens' poor lifestyle choices, has resulted in unfavorable health status for the state.

Workforce Issues and Kentucky

A strong physician workforce is critical for reform, but many variables like population growth and aging, the U.S. economy, healthcare technology innovations and overall health indices influence the reliability of workforce predictions. The aging of the population will increase demand for services right when many physicians are likewise aging and expected to retire. Simply increasing the number of physicians may not mean more access to care or enhance quality of care for patients all over Kentucky given the ongoing maldistribution of physician practices. If unresolved, the lack of equitable distribution of physician services within the population will result in more severe shortages or no care in the places that need it the most, rural and underserved areas.

On a national level there is a predicted national physician shortage by 2020. The Association of American Medical Colleges (AAMC) in 2006 endorsed a 30% increase in medical school enrollment by 2015. Similarly, the national Council on Graduate Medical Education (COGME) recommended to increase residency training slots by 2015 to create about a 3% (30,000 physicians) increase in the nation's physician workforce by 2020. Most admit that this increase is insufficient to meet future needs.

As a result of growing concerns over national and state workforce trends, the Kentucky Institute of Medicine was asked to examine the trends in Kentucky's population and changing physician characteristics. Their task was to determine how these forces are likely to influence the State's number of active physicians by the year 2020. The purpose was to give an accurate assessment of Kentucky's workforce and make projections for workforce needs to guide strategy, decision making and policy.

As the 6th most rural state in the nation, Kentucky's 85 rural counties (out of 120 total) have a high proportion of chronic illness, placing significant stress on physician practices and medical resources. Kentucky has the highest cancer and heart disease mortality rates in the US, which are most severe in the rural counties. Nearly half of Kentucky's counties, 55, are designated Health Professional Shortage Areas (HPSA) for primary care which means there is fewer than one full-time-equivalent primary care physician per 3,500 population. Approximately 400 of Kentucky's family physicians are currently age 60 or above and likely nearing retirement. Kentucky's Family Medicine training programs can not realistically replace this loss over the next decade.[1]

Even worse is the fact that student interest in Family Medicine and primary care at Kentucky's medical schools and across the country has waned, as has the number of residency positions. In the 2007 National Residents Matching Program, only 7.8% of U.S. medical school seniors chose family medicine as their specialty, a significant decline compared to 10 years ago when 17.3% chose family medicine.[1] Other GME trends suggest that the number of general internists, general pediatricians and even American Osteopathic Association (AOA) trained family physicians has been declining as well.[2] There is no doubt that the current health care environment, comparatively low physician salaries of primary care providers and worsening educational indebtedness has played a role in specialty choice, away from primary care. In the end rural areas lose because overall other primary care specialties, general pediatricians, general internists, and even obstetrician-gynecologists do not enter practice in rural areas enough to impact the shortages.[1]

Table 1: Kentucky's Population and Physicians, 2007

Population: 4,206,074 (43 % Rural)

Active physicians per 100,000 population: 213.5 (Ranks 32nd)

Total Active physicians: 8981

- 76% Male
- Median age: 51 for males, 44 for females
- 81.6% Caucasian, 10% Asian, 2% African American
- 96.1% MDs (allopathic)
- 22% International Medical Graduates
- 35% Primary Care
    - 16% FM, 12% IM, 6.5% Peds

Kentucky's Current Physician Workforce

Currently there are 8,981 active physicians practicing in Kentucky. They are mainly comprised of allopathic MDs. It is important to note that only in the last few years have the graduates of the Pikeville School of Osteopathic Medicine entered the workforce. Other descriptive and demographic data is listed in Table 1 from the KIOM Workforce Report. Nationally, there are 267.9 active physicians per 100,000 people. Kentucky ranks 32nd in the U.S. with 213.5 physicians per 100,000. For comparison this trails bordering states' ratios, Tennessee (253), Missouri (235), and West Virginia (222). Kentucky would need to increase its workforce by 2298 (25.6%) physicians just to reach the current national ratio. Compounding this undersupply of physicians is the maldistribution of physicians, with only 28% living and practicing in rural areas even though 43% of the state's 4.2 million residents live in rural areas (Table 2). Rural and urban ratios differ dramatically, with 160 FTE per 100,000 in rural areas vs. 306 in urban areas.

Primary care physicians comprise 35% of the physician workforce in Kentucky. Family medicine remains the specialty of choice among Kentucky physicians (1,435), with internal medicine (1,108) and general pediatrics (585) following. Family medicine is the only specialty that distributes with the population with 56.5% of family physicians living in rural counties. Osteopathic physicians and International Medical Graduates are represented in higher proportion in rural areas compared to allopathic and U.S. medical

Table 2: Kentucky Physicians:Distribution Issues and Rural Areas
➢ Maldistribution of physicians • FTE per 100,000 Population: **164** for Rural, **306** for urban ➢ 22% of counties with <5 physicians ➢ Rural areas: • 28% of total physicians • 56.5% of Family Physicians • 44% of Osteopathic Physician • 36% of International Medical Graduates

graduates respectively. Kentucky's high levels of rurality, poverty and chronic disease, suggest an even greater need for primary care, specifically family physicians, in rural areas.

Kentucky also has a maldistribution of medical, surgical, and other specialists, severely limiting rural residents' ability to access specialty services because they are mainly concentrated around large urban areas. Like nationally, Kentucky has turned to international medical graduates (IMGs) through the J-1 visa program to help fill shortage areas, particularly those in rural areas. IMGs make up 22% of Kentucky's physician workforce, similar to national levels.

Kentucky's medical students' choices of specialty in 2006 followed closely with national trends. Forty-three percent of allopathic medical students selected primary care (family medicine, internal medicine, or pediatrics) compared to 66% of osteopathic students. However, only 19% of allopathic students plan to practice in rural locations compared to 60% of osteopathic students. Many variables affect specialty choice; these include strong personal commitment to certain specialties early in a medical career, expectations about lifetime earnings, and the understanding that most physicians can find a way to manage their debt through loan repayment programs, hospital buyouts and programs used to attract specialties in demand, including primary care.[1]

Projected 2020 Physician Workforce for Kentucky

Factors such as age of physicians, retirement rates, gender, work ethic and type of practice all influence the supply of physicians and their work. The fact that half of all medical students nationwide are women will have a tremendous workforce impact since there is a higher proportion of women practicing in urban areas and they are twice as likely to go into primary care and serve minority, urban and poor populations. Women already outnumber men in family medicine, pediatrics, obstetrics and gynecology, psychiatry and dermatology.

In terms of future demand for physician services, national projections predict an increase of 22% over 2005 levels. Reasons behind the increase demand include a rapidly growing elderly population, poor health status of children and teenagers, higher rates of chronic disease, poor health literacy rates, higher poverty rates and increased number of uninsured patients. Nearly all of those issues are more prevalent in Kentucky and further exacerbated by the rural nature of the state.

Recognizing the current inadequate workforce in Kentucky, the data for Kentucky's workforce supply was compared to national statistics and adjusted to meet the U.S. ratio of 267.9 physicians per 100,000. As stated previously, this amounted to an additional 2,298 physicians

or a 25.6% increase over current numbers (Table 3). The adjusted Kentucky workforce data was then used to project the supply, need and demand for physicians using the Physicians Supply Model (PSM) and Physician Requirement Model (PRM) developed by the Health Resources and Services Administration (HRSA). The demand projections are based on the continuation of current population and economic trends. All the projections using the models assume that current patterns of new graduates, specialty choice and practice behavior continue.

The supply, need and demand for physicians in Kentucky projected for 2020 would require 12,846, 13,422 and 14,989 physicians, or an increase of 43.0%, 49.4% and 66.9% over current numbers (Table 3). Much of this projected increase would be in the primary care specialties (49.7-59.6%). The other specialties projected to be most undersupplied, in need or in demand in 2020 would be general surgery (62.2-231.5%) and psychiatry (62.8-208.0%), although all specialties require an increase in workforce. Emergency medicine would require the fewest number of physicians by 2020, but this would depend on continued utilization rates. For the past 10 years the average annual growth in active physicians for Kentucky is 2.4%. If this rate were to continue, this would add 3,243 physicians by 2020. Kentucky, however, would still need 622 more active physicians to reach the projected supply requirement, 1,198 to meet need, and 2,765 to meet demand, or an increase ranging from 7-30%.

All projection models are based on some workforce and healthcare environment assumptions, so variations differ based on the approach. The American Academy of Family Physicians put together its own needs based workforce policy to specifically identify the workforce needs for family physicians in 2020. This report considered the current trends in specialty care and included declining primary care choice by other specialties such as internal medicine and pediatrics. It also makes an assessment that there is an imbalance of sub-specialization over primary care and that the healthcare system needs a certain percentage of primary care to improve health outcomes. The AAFP workforce study concluded that a needs based projection would result in a need for 2,409 family

Table 3: Kentucky Physicians 2007 and Projected 2020 Workforce

	2007				Kentucky 2020		
	KY Ratio[1]	US Ratio[1]	Current Number	Current Need[2]	Supply	Need[2]	Demand[2]
Kentucky Total	213.5	267.9	8981	25.6%	12,846 (43%)	13,422 (49.4%)	14,989 (66.9%)
Primary Care	94.1	74.4	3128	26.7%	4,684 (49.7%)	4,636 (48.2%)	4,993 (59.6%)
Family Medicine	34.1	38.0	1435	11.6%	1,893 (31.9%)	1,858 (29.5%)	2,018 (40.6%)

[1]Number physicians per 100,000 people
[2]Based on Current US Physician to Population Ratios

physicians for Kentucky to achieve a ratio of 41.6 family physicians per 100,000 population.

Improving the Physician Supply

To address the shortage of Kentucky's physician workforce, the KIOM report proposes strategies to increase the state's supply of physicians, improve the diversity of its physician workforce, address the uneven distribution of physicians, increase physician productivity, and facilitate more effective workforce planning. Overall, Kentucky simply needs to supply more physicians and the rural communities clearly are in the greatest need. The state must continue to attract physicians to the rural areas, but most importantly students from rural Kentucky need to be increasingly enrolling and be accepted into medical school.

The Area Health Education Centers (AHECs) and Health Career Opportunity Programs both currently act to encourage and increase rural, underserved and minority students pursuing careers in health professions. The M-1 Trover Rural Pathways Program also acts to maintain interest in rural practice among students. With the establishment of the Pikeville School of Osteopathic Medicine in 1997, the state got a school that trains students in a rural setting and is more likely to produce family physicians than allopathic schools (46% vs. 11%) and to have graduates choose rural practice (18.1% vs. 11.5%).

Some nationally recognized programs like the Physician Shortage Area Program (PSAP) at Jefferson Medical College could be emulated to create more comprehensive selection and training programs to target rural and minority primary care physicians. Since 1974 it has included only 7% of graduates yearly but now accounts for 21% of the Pennsylvania's Family Physicians in rural practices. Elements of these types of programs already exist with the already established Trover Rural Track at the University of Louisville medical school as well as rural training opportunities at the other medical schools. Each has had varied success. Continuing to develop both a rural and minority "pipeline" will go a long way towards combating the maldistribution in the Kentucky physician workforce.[1]

All of Kentucky's medical schools have increased annual admissions in recent years to act on the shortages and the University of Kentucky is pursuing an expansion of its class specifically for a rural clinical campus in Morehead similar to the UL-Trover Rural Track in Madisonville. Other potential rural campuses are being considered as well. Expansion of graduate medical education is also a consideration to aid the workforce shortage, but caps on Medicare funding limit this option. Successful expansion of GME slots for primary care, specifically Family Medicine, would likely show immediate gains in rural physician supply. Legislative efforts nationally could help to increase these positions.

Other federal governmental advocacy efforts such as the support and expansion of the National Health Service Corps, the development of more Federally Qualified Health Centers and improved reimbursement for primary care and underserved areas could help the alleviate the maldistribution and workforce problems. State legislative efforts to provide incentives or funds for loan repayment could also help improve the success of retaining resident trainees and recruiting physicians to Kentucky.

Impressions

There are some limitations in the KIOM workforce study

specifically related to the prediction models. The baseline projection assumes that current patterns of new graduates, specialty choice and practice behavior continue. It also assumes that national 2007 workforce ratios represent an appropriate healthcare workforce with regards to proportions of specialties, primary care vs. sub-specialty care. Fifty years ago, half of the US physicians were generalists or primary care providers. Currently, primary care physicians represent only 35% of all physicians. Is a physician workforce that is predominantly sub-specialty physicians good for Kentucky and the U.S. Healthcare System? An expansive amount of research supports that a primary care-based healthcare system matters. Higher concentrations of primary care, in contrast to specialty to care, has proven to lower mortality, reduce cost and over utilization of health care resources, and achieve more equitable health for populations at the county, state, national and international levels.[3,4.5] Above a certain acceptable level of sub-specialist supply, health outcomes worsen. Specifically, an increase of one primary care physician per 10,000 population, results in a decrease of 14.4 deaths per 100,000 with an enhanced effect on racial disparities.[6] In some instances, having a primary care physician as a usual source of care is a stronger predictor of good health outcomes than insurance status.[7] Among primary care specialties, only Family Medicine was consistently associated with lower mortality when controlling for other factors.[3] The optimum ratio of sub-specialists to primary care is not clear, but evidence supports that in the US, we are too sub-specialized as a healthcare system.

Who will care for Kentucky in the future? Based on the workforce data it is clear that primary care physicians, specifically family physicians, provide the vital access to care for rural Kentucky. No doubt that in the future they will continue to do so. No other specialty has proven they will distribute within, and to, the entire population. The real question is will we support the rural workforce financially and as a healthcare priority?

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Morehead Family Physician and Educator Receives Prestigious Award

LEAWOOD, Kans. –Morehead, **Kentucky,** physician Amy Jo Conley, M.D., is among a select group of physicians honored by the American Academy of Family Physicians Foundation for her commitment to education in the field of family medicine. Dr. Conley was selected to receive the 2007 Pfizer Teacher Development Award based on her scholastic achievement, leadership qualities and dedication to family medicine.

The $1,500 award, supported by Pfizer Medical Humanities Initiatives, recognizes community-based physicians who have chosen to teach family medicine on a part-time basis. The award provides funding for each recipient to attend a seminar, workshop or fellowship to further his or her development and teaching skills.

"As past recipient of the Teacher Development Award, I am pleased that Pfizer continues to make awards available to our members," said AAFP/F President Jerry P. Rogers, M.D., "this program recognizes dedication to mentorship among family physicians such as Dr. Conley."

Dr. Conley received her M.D. degree from the University of Louisville School of Medicine and is a graduate of the University of Kentucky Center for Rural Health Residency Program. Dr. Conley is currently teaching family medicine part-time at St. Claire Regional Rural Training Track Residency in Family medicine. She will be recognized for this achievement during a ceremony held by her teaching center.

In addition to her work as a dedicated teacher of family medicine, Dr. Conley is the medical director of the Elliott County Medical Clinic, an affiliate of St. Claire Regional Medical Center. Dr. Conley describes her community involvement as revolving around God, family, and medicine and volunteers her services at a free clinic, the People's Clinic, in Morehead; provides free sports physicals so that every child will have an opportunity to participate; and is very active with her church and family.

The AAFP Foundation (AAFP/F), which administers the Pfizer Teacher Development Award, is the philanthropic arm of the 94,000-member American Academy of Family Physicians. The AAFP/F supports programs which benefit people's health care delivery such as initiatives to raise immunization rates in children, opportunities for residents to promote mother/child relationships through the gift of a rocking chair, and research training opportunities for residents and medical students. Please visit www.aafpfoundation.org for more information about the AAFP/F.

Mark Your Calendar for Upcoming Meetings!

Kentucky Academy of Family Physicians
Board of Directors & Committee Meeting
Wednesday, January 30, 2008 at 7:00pm Eastern Time
Dinner Meeting at the Capital Plaza Hotel
Frankfort, KY

Ten State Meeting
February 8-10, 2008
Hilton-Hartford, CT

Annual Leadership Forum
May 2-3, 2008
Hyatt Regency
Kansas City, MO

Kentucky Academy of Family Physicians
Board of Directors & Committee Meeting
Thursday, May 15, 2008 at 6:00pm Eastern Time
Louisville Marriott East
Louisville, KY

Kentucky Academy of Family Physicians
Annual Scientific Assembly
May 16-17, 2008
Louisville Marriott East Hotel
Louisville, KY

National Resident & Student Conference
July 30-Aug. 2, 2008
Kansas City MO

South Eastern Forum
Aug. 14-16, 2008
Stonewall Resort
Roanoke, WV

AAFP COD
Sept. 15-17, 2008
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AAFP Annual Scientific Assembly
Sept. 17-21, 2008
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