AMHERST, Mass. — Once they discover that she is Dr. Kate, the supplicants line up to approach at dinner parties and ballet recitals. Surely, they suggest to Dr. Katherine J. Atkinson, a family physician here, she might find a way to move them up her lengthy waiting list for new patients.

Those fortunate enough to make it soon learn they face another long wait: Dr. Atkinson’s next opening for a physical is not until early May — of 2009.

In pockets of the United States, rural and urban, a confluence of market and medical forces has been widening the gap between the supply of primary care physicians and the demand for their services. Modest pay, medical school debt, an aging population and the prevalence of chronic disease have each played a role.

Now in Massachusetts, in an unintended consequence of universal coverage, the imbalance is being exacerbated by the state’s new law requiring residents to have health insurance.

Since last year, when the landmark law took effect, about 340,000 of Massachusetts’ estimated 600,000 uninsured have gained coverage. Many are now searching for doctors and scheduling appointments for long-deferred care.

Here in western Massachusetts, Dr. Atkinson’s bustling 3,000-patient practice, which was closed to new patients for several years, has taken on 50 newcomers since she hired a part-time nurse practitioner in November. About a third were newly insured, Dr. Atkinson said. Just north of here in Athol, the doctors at North Quabbin Family Physicians are now seeing four to six new patients a day, up from one or two a year ago.

Dr. Patricia A. Sereno, state president of the American Academy of Family Physicians, said an influx of the newly insured to her practice in Malden, just north of Boston, had stretched her daily caseload to as many as 22 to 25 patients, from 18 to 20 a year ago. To fit them in, Dr. Sereno limits the number of 45-minute physicals she schedules each day, thereby doubling the wait for an exam to three months.

“It’s a recipe for disaster,” Dr. Sereno said. “It’s great that people have access to health care, but now we’ve got to find a way to give them access to preventive services. The point of this legislation was not to get people episodic care.”

Whether there is a national shortage of primary care providers is a matter of considerable debate. Some researchers contend the United States has too many doctors, driving overutilization of the system.
But there is little dispute that the general practice of medicine is under strain at a time when there is bipartisan consensus that better prevention and chronic disease management would not only improve health but also help control costs. With its population aging, the country will need 40 percent more primary care doctors by 2020, according to the American College of Physicians, which represents 125,000 internists, and the 94,000-member American Academy of Family Physicians. Community health centers, bolstered by increases in federal financing during the Bush years, are having particular difficulty finding doctors.

“I think it’s pretty serious,” said Dr. David C. Dale, president of the American College of Physicians and former dean of the University of Washington’s medical school. “Maybe we’re at the front of the wave, but there are several factors making it harder for the average American, particularly older Americans, to have a good personal physician.”

Studies show that the number of medical school graduates in the United States entering family medicine training programs, or residencies, has dropped by 50 percent since 1997. A decadelong decline gave way this year to a slight increase in numbers, perhaps because demand is driving up salaries.

There have been slight increases in the number of doctors training in internal medicine, which focuses on the nonsurgical treatment of adults. But the share of those residents who then establish a general practice has plummeted, to 24 percent in 2006 from 54 percent in 1998, according to the American College of Physicians.

The Government Accountability Office reported to Congress in February that the per capita supply of primary care physicians actually grew by 12 percent from 1995 to 2005, at more than double the rate for specialists. But the report also revealed deep shifts in the composition of primary care providers.

While fewer American-trained doctors are pursuing primary care, they are being replaced in droves by foreign medical school graduates and osteopathic doctors. There also has been rapid growth in the ranks of physician assistants and nurse practitioners.

A. Bruce Steinwald, the accountability office’s director of health care, concluded there was not a current nationwide shortage. But Mr. Steinwald urged the overhaul of a fee-for-service reimbursement system that he said undervalued primary care while rewarding expensive procedure-based medicine. His report noted that the Medicare reimbursement for a half-hour primary care visit in Boston is $103.42; for a colonoscopy requiring roughly the same time, a gastroenterologist would receive $449.44.

Numerous studies, in this country and others, have shown that primary care improves health and saves money by encouraging prevention and early diagnosis of chronic conditions like high blood pressure and diabetes. Presidential candidates in both parties stress its importance.

Here in Massachusetts, legislative leaders have proposed bills to forgive medical school debt for those willing to practice primary care in underserved areas; a similar law, worth $15.6 million, passed in New York this week. Massachusetts also recently authorized the opening of clinics in drug stores, hoping to relieve the pressure.

“It is a fundamental truth — which we are learning the hard way in Massachusetts — that comprehensive
health care reform cannot work without appropriate access to primary care physicians and providers,” Dr. Bruce Auerbach, the president-elect of the Massachusetts Medical Society, told Congress in February.

Jon M. Kingsdale, executive director of the agency that oversees the Massachusetts initiative, said he had not heard of major problems, but acknowledged “the prospect of a severe shortage” as newly insured patients seek care in doctors’ offices rather than emergency rooms.

Given the presence of four medical schools and Boston’s dense medical infrastructure, it might seem difficult to argue that Massachusetts has too few doctors. The state ranks well above the national average in the per capita supply of all doctors and of primary care physicians.

But those measures do not necessarily translate into adequate access, particularly in remote areas. Annual work force studies by the medical society have found statewide shortages of primary care doctors in each of the last two years.

The share who accept new patients has dropped, to barely half in the case of internists, and the average wait by a new patient for an appointment with an internist rose to 52 days in 2007 from 33 days in 2006. In westernmost Berkshire County, newly insured patients are being referred 25 miles away, said Charles E. Joffe-Halpern, director of an agency that enrolls the uninsured.

The situation may worsen as large numbers of general practitioners retire over the next decade. The incoming pool of doctors is predominantly female, and many are balancing child-rearing with part-time work. The supply is further stretched by the emergence of hospitalists — primary care physicians who practice solely in hospitals, where they can earn more and work regular hours. President Bush has proposed eliminating $48 million in federal support for primary care training programs.

Clinic administrators in western Massachusetts report extreme difficulty in recruiting primary care doctors. Dr. Timothy Soule-Regine, a co-owner of the North Quabbin practice, said it had taken at least two years and as long as five to recruit new physicians.

At the University of Massachusetts Medical School in Worcester, no more than 4 of the 28 internal medicine residents in each class are choosing primary care, down from half a decade ago, said Dr. Richard M. Forster, the program’s director. In Springfield, only one of 16 third-year residents at Baystate Medical Center, which trains physicians from Tufts University, plans to pursue primary care, said Jane Albert, a hospital spokeswoman.

The need to pay off medical school debt, which averages $120,000 at public schools and $160,000 at private schools, is cited as a major reason that graduates gravitate to higher-paying specialties and hospitalist jobs.

Primary care doctors typically fall at the bottom of the medical income scale, with average salaries in the range of $160,000 to $175,000 (compared with $410,000 for orthopedic surgeons and $380,000 for radiologists). In rural Massachusetts, where reimbursement rates are relatively low, some physicians are earning as little as $70,000 after 20 years of practice.

Officials with several large health systems said their primary care practices often lose money, but generate
revenue for their companies by referring patients to profit centers like surgery and laboratories.

Dr. Atkinson, 45, said she paid herself a salary of $110,000 last year. Her insurance reimbursements often do not cover her costs, she said.

“I calculated that every time I have a Medicaid patient, it’s like handing them a $20 bill when they leave,” she said. “I never went into medicine to get rich, but I never expected to feel as disrespected as I feel. Where is the incentive for a practice like ours?”

This article has been revised to reflect the following correction:

Correction: April 9, 2008
An article on Saturday about a shortage of primary care physicians in Massachusetts misstated a word in a quotation by Katherine J. Atkinson, a doctor who said that her insurance reimbursements often do not cover her costs. She said, “I calculated that every time I have a Medicaid patient, it’s like handing them a $20 bill when they leave;” she did not say “Medicare” patient.