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Impact of the Resident Caps
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MEDPAC Medicare
Payment Advisory
Commission

601 New Jersey Ave., NW • Suite 9000 • Washington, DC 20001
(202) 220-3700 • Fax: (202) 220-3759 • www.medpac.gov

The Balanced Budget Act of 1997 (BBA) placed a cap on the number of residents Medicare would support through its direct graduate medical education payment and indirect medical education (IME) adjustment.¹ Before the BBA, Medicare payments increased with each additional resident a hospital trained. The resident cap was put in place to eliminate the incentive hospitals had to increase the number of residents they trained and thereby increase their payments. Some policymakers are concerned that the cap is constraining the supply of geriatricians, physicians who specialize in caring for the elderly. This paper responds to a request in MedPAC’s 2001 appropriations report “language” to examine this issue. In brief, we find that the number of first-year geriatric fellowship positions continued to increase even after imposition of the cap, and that the number of physicians entering these programs has not kept pace with increases in the number of geriatric positions. Moreover, Medicare provides higher direct medical education rates for geriatric residencies. We conclude that no changes are necessary to Medicare’s resident cap, as the persistent vacancies in geriatric programs indicate that other forces are responsible for the slow growth of this profession.

Geriatricians

Geriatricians are physicians who have expertise in aging-related issues or gerontology, the study of the aging process. Their profession emphasizes the diagnosis and treatment of problems that are more common in older adults, particularly confusion and dementia, depression, instability and falls, incontinence, chronic pain management, sensory impairment, and end-of-life care. Geriatricians are trained to care for some of the most complex patients—many of whom are near the end of life. These providers are oriented toward primary care—board certified in family practice, internal medicine, or psychiatry—and have completed at least one additional year of training in geriatrics. Geriatricians’ clinical practice occurs in offices, hospitals, patients’ homes, assisted care facilities, nursing homes, and hospice settings (Warshaw 2002). They also are consultants to other physicians, educators in medical residency programs, and researchers.

To be certified in geriatrics, a physician must complete a one-year fellowship following his or her residency training in family practice, internal medicine, or psychiatry. Physicians pursuing academic or research-oriented careers in geriatrics generally extend their fellowship a second year. Certification requirements have changed since board certification began in the late 1980s. Prior to 1998, two years of training were required to sit for the geriatric certification exam. Between 1988 and 1994 when the certification process was still new, physicians who had not completed a geriatric fellowship but had substantial practice experience in caring for the elderly could take the certification exam. To maintain certification, all geriatricians must pass a recertification exam every ten years and remain certified in their core specialty (family practice, internal medicine, or psychiatry).

¹A resident is a physician in post-medical school training. Most residencies generally last three years to five years, depending upon the specialty. A fellow describes a physician who pursues subspecialty training after completing a residency. Fellowship training can last anywhere from one to three or more years, depending upon the subspecialty. The term resident encompasses both residents and fellows.

Medicare's support for medical education

Medicare pays for a portion of the cost of medical education for residents and fellows through direct and indirect medical education payments to teaching hospitals. The direct, graduate medical education (GME) payments are for the direct costs of residency programs (resident stipends, salaries for teaching physicians, and related overhead expenses for running the program). Medicare spends about \$2 billion per year on GME. The IME adjustment is a percentage add-on to the PPS payment rates for teaching hospitals, and was established to recognize the higher patient care costs of teaching hospitals. Both types of payments rise with the number of residents a hospital trains.

GME payments are based on hospital-specific costs per resident in 1984, updated for inflation. A hospital's payment is the product of three factors:

- the hospital's per resident payment amount,²
- a weighted count of full-time equivalent (FTE) residents training in the facility, capped at the number of FTEs training in 1996, and
- the hospital's Medicare patient share, based on the ratio of Medicare patient days to total patient days in the acute inpatient setting.

IME payments are based on a formula that raises inpatient payments by about 5.5 percent for every 10 percent increase in the ratio of residents to hospital beds. As with the GME formula, the resident count used in the IME formula is capped. If the caps were to increase, GME and IME payments would rise (see text box on page 3).

²The per resident amounts depend on the residents' specialties. Payments are about 6 percent higher for residents training in primary care specialties (family practice, general internal medicine, general pediatrics, and obstetrics and gynecology) and other selected specialties (geriatrics, public health, and preventive medicine), compared with other specialties.

How much does one additional resident increase a hospital's GME & IME payments?

Annual increase in IME payments =

Change in IME adjustment percentage from adding one resident \times wage-adjusted standardized amount (\$4,251.2) \times hospital's CMI \times number of Medicare discharges

Annual increase in direct GME payments =

Resident weighting factor \times per resident payment amount \times (Medicare days/total days)

Hospital A example:

A 400-bed, 100-resident hospital

Total discharges: 25,000 (total patient days: 110,500)

Medicare discharges: 7,000 (Medicare days: 38,500)

Change in IME adjustment percentage from adding one resident 0.12%

Case-mix index 2.0

Wage index 1.0

Per resident payment amount \$70,000

Increase in IME payments = $0.12\% \times (\$4,251.2 \times 2.0) \times 7,000 = \$ 71,420$

Increase in direct GME payments = $(1.0) \times \$70,000 \times (38,500/110,500) = \$ 24,389$

Total increase in IME and GME payments from the addition of one resident = \$95,809

Hospital B example:

A 200-bed, 25-resident hospital

Total discharges: 10,000 (total patient days: 46,000)

Medicare discharges: 4,000 (Medicare days: 22,000)

Change in IME adjustment percentage from adding one resident 0.25%

Case-mix index 1.5

Wage index 1.0

Per resident payment amount \$70,000

Increase in IME payments = $0.25\% \times (\$4,251.2 \times 1.5) \times 4,000 = \$63,768$

Increase in direct GME payments = $(1.0) \times \$70,000 \times (22,000/46,000) = \$33,478$

Total increase in IME and GME payments from the addition of one resident = \$97,246

Note: CMI (case-mix index), GME (graduate medical education), IME (indirect medical education). If the hospital added a subspecialty fellow, the increase in direct GME payments would be lower. The resident weighting factor would be 0.5 and the per resident payment amount would be about 6 percent less. The increase in direct GME payments would thus be about 47 percent of what is shown in the above examples. The increase in IME payments would be the same as shown above.

The payment system prior to the BBA provided strong incentives for hospitals to continue to increase the number of residents, as both GME and IME payments rose with each additional resident. In the BBA, the Congress capped the number of residents Medicare pays for through

medical education at 1996 levels; however, special treatment was given for certain training situations that the Congress thought might be disadvantaged by the caps. Within each hospital's established cap, the facility may distribute its residency positions to any type of physician training activity. Only dental and podiatry residents are excluded from the calculation of a hospital's cap. Hospitals may train more residents than the cap for their facility, but when they do so, they receive no additional Medicare payments.

Geriatricians receive special treatment under Medicare's GME policies. When the GME per resident payment amounts were frozen for two years in the mid-1990s for all non-primary care residencies and fellowships, the per resident amounts for geriatric training programs were treated like primary care and fully updated. Also, each physician in subspecialty training programs only counts as 0.5 FTE in a hospital's direct GME payment. Even though geriatricians are technically subspecialists, they are each counted as 1.0 FTE. Hospitals training a greater share of non-subspecialists and geriatricians receive more direct GME payments than they would by training a greater share of subspecialists.³ Because the IME cap is based on an actual count of residents, the level of the IME adjustment is not influenced by the type of residents a hospital trains.

Hospitals, medical schools, department chairs, and faculty may consider not only GME payments but also the ability of certain specialties to generate revenue in deciding the mix of residents to hire. If subspecialty residents allow the hospital or faculty practice plan to generate substantial revenue, the incentive to maximize their revenues may outweigh the incentive to maintain a small number of subspecialists to maximize GME payments. For example, if the availability of subspecialty residents enabled the hospital to bring in more Medicare patients (increase volume), or increase the number of complex procedures with a higher DRG weight (increase the case-mix index), the total revenue including the IME adjustment could be higher than would be the case with a larger share of primary care doctors.

Demand for geriatricians and geriatric care

Estimates of potential need for geriatricians vary. With a rapidly aging population and the growing diversity of the types of health care providers available to treat patients, specifying the appropriate supply of geriatricians is a difficult task. The role of geriatricians, both in patient care delivery and for training future physicians, needs to be considered. Important questions beyond the scope of this report need to be answered before we can determine whether the health care system should train a greater supply of geriatricians. For example:

- What specific value do geriatricians offer patients?
- How might they be used to coordinate care?
- Are other providers able to furnish these services?
- Which patients benefit the most?

³Residents training in preventive medicine subspecialty programs are also counted as 1.0 FTE.

- Are doctors aware of this specialty and referring patients to geriatricians regularly?
- Should all frail elderly be treated by a geriatrician, or alternatively, should all providers have some training in the care of geriatric patients?

Estimates of the need for geriatricians vary substantially depending on the assumptions that organizations make about who provides care and which populations will use geriatricians. The Alliance for Aging Research, an advocacy group for improving health and independence of the elderly, estimated that 20,000 physician geriatricians are currently needed to adequately care for the elderly population. They estimate that 36,000 geriatricians will be needed by 2030. A 1987 study from the National Institute on Aging estimated the need for clinical geriatricians in 2000 to be between 9,000 and 29,000, depending on the mode of geriatric practice. Another model, which assumed that primary care physicians would provide the bulk of care to the elderly, estimated that somewhere between about 3,700 and 9,700 geriatricians would be needed to provide clinical care for older people (Reuben et al. 1993).

Advocates are also concerned about the supply of academic geriatricians. The Alliance for Aging Research estimates that 2,400 academic geriatricians are currently needed to train new providers, integrate geriatrics into medical practice, and develop studies of care for older people, similar to the findings of other studies (Kane 1980, Reuben 1994). A 1987 Institute of Medicine national advisory panel recommended that each medical school have at least nine physician faculty trained in geriatrics, but currently only 30 percent of medical schools have reached this target (Warshaw 2002). Program directors in internal medicine and family practice estimated a total need of 2,000 academic geriatricians to provide training in geriatric care for all medical residents, not just geriatric residency programs (Reuben 1994). Some studies have cited shortages of geriatric fellowship trained faculty for family practice and internal medicine residency programs (Warshaw et al. 2003). Other faculty, though, may likely have expertise in geriatrics, but not list it as their primary specialty.

Current and future supply of geriatricians

The number of physicians certified in geriatrics has grown over the past decade. Since certification began in 1988, about 9,900 allopathic family practitioners and internists, 2,500 psychiatrists, and 500 osteopathic family practice and internists, have received certificates of added qualifications in geriatrics. Given the number of physicians in training programs, more than 350 new geriatricians should enter practice each year. However, recertification rates for geriatricians are currently running at less than 50 percent, and this will cause the total number of certified geriatricians to fall over the next decade despite growth in fellowship training programs. Many physicians were certified without prior fellowship experience through alternative practice

pathways, and these generally older physicians do not appear to be renewing their certification. This phenomenon is contributing to an expected 34 percent drop in the number of currently certified geriatricians from 1998 to 2004 (Warshaw 2002).⁴

The number of geriatric fellowship programs and the number of geriatric fellows have slowly increased over the past decade. In the 2002-2003 academic year, there were 454 fellows in approved geriatric training programs, down slightly from a peak in 1999 (Table 1). The number of first-year fellows, a better indicator of entry into the field, totaled 365, a new high.⁵ About 3 percent of residents completing internal medicine and family practice residencies pursue fellowships in geriatrics, and about 8 percent of psychiatry residents pursue psychiatric geriatric fellowships.

Table 1. Number of geriatric fellows in training, by specialty and year of training

	1995	1996	1997	1998	1999	2000	2001	2002
First year fellows	152	221	286	328	364	326	340	365
Family practice	11	8	23	30	39	25	34	36
Internal medicine	106	136	182	209	230	222	225	256
Psychiatry	35	77	81	89	95	79	81	73
All years	261	324	389	426	466	407	432	454
Family practice	22	22	29	37	42	28	36	41
Internal medicine	201	220	276	298	326	293	302	327
Psychiatry	38	82	84	91	98	86	94	86

Source: 1995-2001 data from JAMA medical education issues (1996-2002); 2002 data based on preliminary information from AMA.

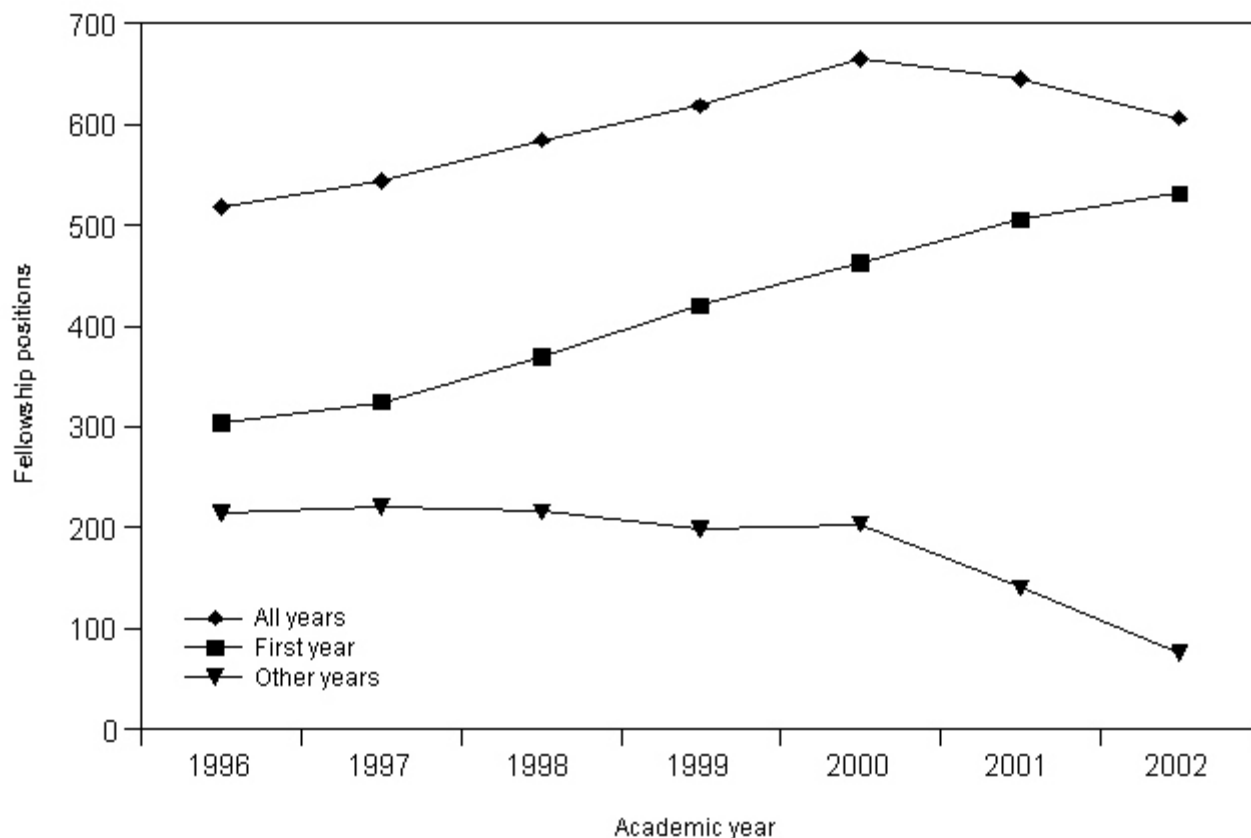
While the total number of training slots in geriatrics has fallen since 2000 (Figure 1), the number of first-year training slots has grown steadily. This growth is largely the result of hospitals converting most of their second-year slots to first-year positions. The decline in second-year positions reflects a decision of the certification board to lower the eligibility requirement for certification from two years to one year.⁶ This decision had two main effects.

⁴The 34 percent decline represents a drop in the number of family and internal medicine physicians certified as geriatricians, excluding psychiatrists certified as geriatricians. A similar decline in geriatric psychiatrists is also expected.

⁵These numbers do not reflect fellows in osteopathic programs. In 2000 there were seven fellows in these programs.

⁶The Geriatric Medicine Certification Program is jointly administered by the American Board of Internal Medicine and the American Board of Family Practice.

Figure 1. Number of fellowship positions offered in geriatrics, 1996-2002



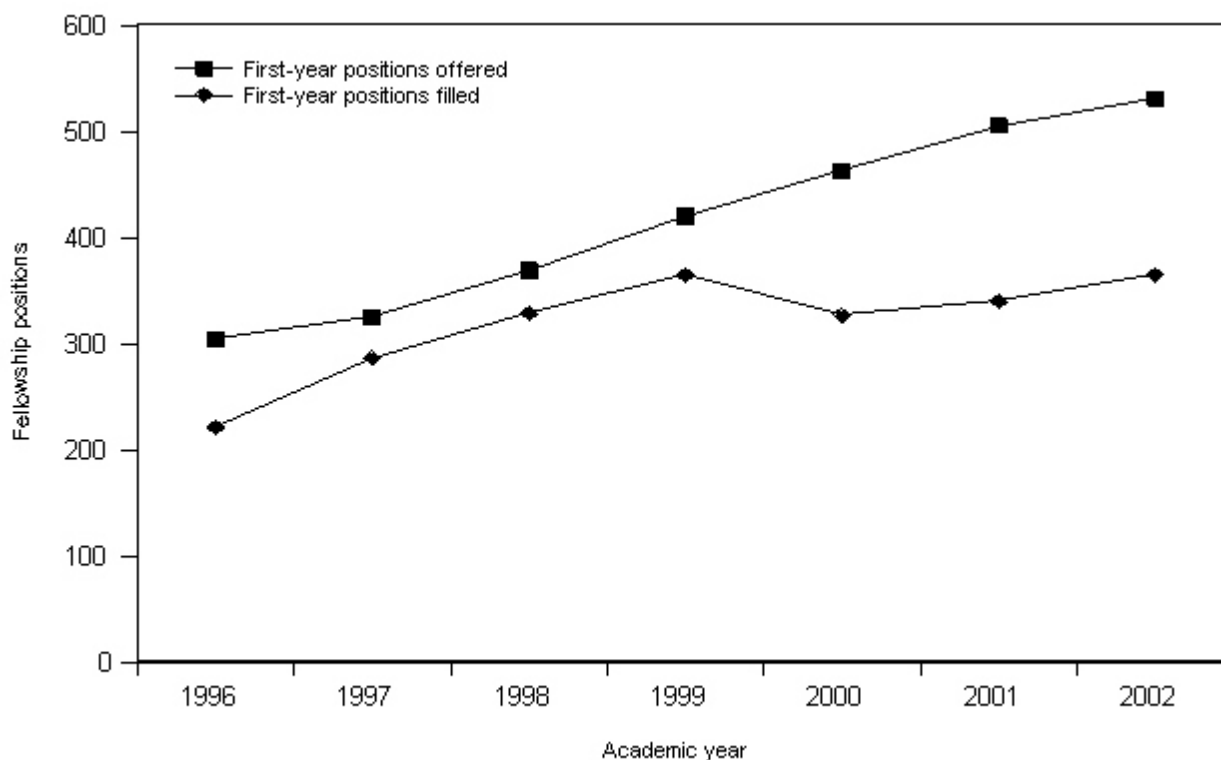
Source: 1995-2001 data from JAMA medical education issues (1996-2002); 2002 data based on preliminary information from AMA.

First, reducing the amount of time required for certification appears to have made geriatric residencies more attractive to physicians, as the number of first-year residents is increasing. However, there is still a significant gap between the number of positions available and the number of physicians enrolling in these programs. Fewer two-year positions are available since the board changed its certification requirements.

Second, since geriatrics is considered a subspecialty under Medicare's payment policies, the statute requires Medicare to pay for the minimum amount of time necessary for certification. The Congress made a special exception to this policy for geriatricians, paying as if geriatrics were not a subspecialty, when calculating a hospital's direct GME payments. However, when the certification board reduced the amount of time necessary for certification, it effectively reduced the amount of direct GME payments hospitals could receive. This may have dampened the interest by hospitals, medical schools, and department chairs in providing additional years of geriatric residency training for physicians wishing to pursue careers in academia or research, where two years of training is considered a benchmark for entry into the profession.

For both first- and second-year positions, the number of physicians entering geriatric residencies has not kept pace with growth in the number of slots. As a result, the fill rate for first-year positions fell from 89 percent in 1998 to 69 percent in 2002 (Figure 2). The fill rate for geriatrics is below that for most other medical subspecialties. In 2001 when the fill rate for geriatrics was 67 percent, the fill rate for first-year fellowship positions in other subspecialties was higher: 89 percent in cardiology, 69 percent in endocrinology, 76 percent in gastroenterology, 86 percent in nephrology, 94 percent in pulmonary disease and critical care medicine, 74 percent in rheumatology, 75 percent in sports medicine, and 70 percent in child psychiatry. Also, a higher proportion of geriatric fellowship positions (55 percent in 2001) was filled by international medical school graduates compared with most other subspecialties—perhaps another indicator of the lack of general interest in these positions among physicians from U.S. medical schools.

Figure 2. Comparison of first-year geriatric fellowship positions offered and filled, 1996-2002



Source: 1995-2001 data from JAMA medical education issues (1996-2002); 2002 data based on preliminary information from AMA.

Several factors may account for the relatively small number of applicants to geriatric fellowship programs and the recruitment of only a small number of U.S. medical school graduates. First, the medical problems of older people have often been viewed as unexciting and irreversible (Rowe 1987). A second factor is that physician interest in geriatrics builds on interest in primary care, which is now weakening (Warshaw 2002). Another factor is student debt: compensation

for both academic and nonacademic primary care physicians and geriatricians remains relatively low compared with that of procedure-oriented specialties (Warshaw 2002). Providers' dependence on Medicare for revenue once they are in practice and the lack of faculty role models may be other factors contributing to their rather low interest (Warshaw 2002).

Factors influencing the specialty

The growth or decline of any particular specialty depends on a number of issues: patient demand for service, expected payment (including patient mix), interest in a specialty developed while in medical school, and preferences for where to practice and train. Economic incentives in the payment system can influence both the physician's choice of practice specialty as well as decisions about which residency positions are likely to generate revenues. We discuss two of these issues, training opportunities and payment.

Training opportunities

Geographic availability of residency positions might factor in a physician's decision whether to pursue geriatric training. Because only one year of training is required for geriatric certification, some physicians may be reluctant to move for such a short training period if no positions are available locally. Instead, they may go directly into practice or choose another subspecialty. Conversely, the short training period required may make these programs more attractive to students wishing to complete their training and embark on their careers. This appears to be the stronger incentive, as the number of residents is increasing.

Payment

Given their focus on elderly patients, geriatricians are almost entirely dependent on Medicare revenues. The physician payment system in Medicare is generally designed to pay the average cost of delivering a specific service. Geriatricians assert that caring for their patients is more complicated than for average beneficiaries for any particular service and suggest that they are not adequately paid for their services. If this is true, Medicare's payment policies could influence physicians' decisions to enter the field of geriatrics as well as the selection of the type of residency programs available at a hospital. The problems cited by practitioners include:

- Medicare does not cover assessments or coordination and management of care, the principal activities of geriatricians.
- Medicare payment rates for services are based on the average for the time and effort required to see the typical patient, but geriatricians specialize in the care for frail, chronically ill older patients who need more time.
- As a result of the extra time spent with patients, geriatricians typically have fewer patients and provide fewer visits than other primary care practices (Cefalu 2002).

The concerns geriatricians raise reflect several design elements of the physician payment system. Implementation of the physician fee schedule caused a significant shift in payments from procedural services to evaluation and management services such as those provided by internal medicine doctors, general practitioners, and geriatricians. In other words, the physician payment system has been restructured to pay relatively more for the types of services geriatricians provide. However, if a geriatrician's patient mix is even more complex than the patients seen by an internal medicine doctor, for example, the payment system would still contain some biases unfavorable to geriatricians.

Within the fee schedule, work relative value units (RVUs) reflect assessment of the amount of effort a physician makes to perform a particular service. Geriatricians assert that many of the work RVUs for their services are too low; however, these weights were set to reflect the judgment of all physicians about the relative complexity and effort required to deliver a service. The process of updating the weights continues through the Relative Value Scale Update Committee (RUC). If the added expense of a service for particularly frail beneficiaries can be clearly demonstrated, exploration of some payment adjustment may be appropriate. Since Medicare does not pay for physical examinations though, criteria for a new geriatric service must be carefully constructed. While these issues are beyond the scope of this report, they influence the supply of geriatricians.

The same policies that affect physicians' selection of a profession also may play a role in decisions about what types of residencies will be offered at a facility. Geriatricians provide relatively few procedural services, indicating that their power to generate revenue may be relatively less than other procedurally oriented specialties such as cardiology. The lower income potential for geriatricians may also deter residents from geriatric subspecialty training.

Discussion

Medicare graduate medical education payments favor geriatricians: the program pays more for geriatricians than it does for residents in other subspecialty training programs, and geriatric residents' GME updates were exempted from a freeze in GME rates during the mid-1990s.

These policies and a decision to reduce the length of training by the geriatricians' certification board may have contributed to expansion of first-year geriatric training positions, particularly those designed for clinicians, at the expense of second-year positions used to train geriatrician faculty.

Overall, growth in geriatric training programs does not appear to be constrained by the BBA-imposed resident caps. While the number of physicians pursuing geriatric fellowships is rising, a substantial number of available training slots remain vacant. The two-year program positions, generally considered academic tracks, have declined. This appears to reflect changes in the certification process made by the Geriatric Certification Program, not Medicare's policies.

Excluding geriatric training programs from the caps would likely have very little impact on the number of training opportunities. Such a change would also be inconsistent with previous MedPAC recommendations that federal policies intended to affect the number, mix, and distribution of the health care workforce should be implemented through specific targeted programs rather than through Medicare (MedPAC 1999, 2001). In fact, the Health Resources and Services Administration already supports numerous clinical and academic geriatric training programs for physicians through its Area Health Education Center Program. Increasing the number of geriatricians may be best addressed through workforce development, rather than payment policy.

Lifting the cap would be inconsistent with the Commission's view on Medicare IME payments. In MedPAC's 2003 March report, the Commission reported that Medicare is paying about twice the empirically justified level for indirect medical education. Lifting the caps would add new funds to the IME payments that teaching hospitals currently receive, adding money where the Commission believes Medicare's current payments lack accountability and do not target policy objectives consistent with Medicare's goals.

Factors other than Medicare's resident caps may better explain the slow growth in the number of geriatric physicians. The medical problems of older people are often viewed as unexciting and irreversible. If the profession is not attracting sufficient interest from physicians completing their initial residency, vacancies in training programs will likely persist. Geriatricians will likely have lower income relative to procedurally oriented specialties, further dampening physicians' interest in this career.

A more fundamental question is whether developing additional geriatric fellowships or expanding the amount of training medical students and residents across all specialties receive in caring for the elderly is the better approach. One of the focuses on geriatric fellowships has been to develop future academic leaders. However, the current pool of physicians pursuing academic tracks may not be large enough to support future training needs. Increasing the exposure of medical students and residents to geriatrics may encourage more physicians to enter geriatrics training. If the number of fellows does not increase, using geriatricians to provide more training in the care of the elderly to all physicians in medical school may be effective in broadening knowledge of approaches to geriatric care.

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