

CHAPTER

3

**Access to care in the
Medicare program**

Access to care in the Medicare program

A basic goal of Medicare is to ensure that elderly and disabled Americans have access to appropriate, high-quality health care. In this chapter, MedPAC evaluates beneficiary access along three dimensions: (1) the health system's capacity; (2) beneficiaries' ability to obtain care; and (3) access to appropriate care.

As noted in Chapter 2, our analysis finds no widespread problems with beneficiaries' access to care. Although more selective about their patients than in the past, most physicians are accepting at least some Medicare beneficiaries. Post-acute services are generally available, although it has become more difficult to place the most complex patients in skilled nursing facilities. Shortages of registered nurses could affect the availability or timeliness of certain services, however, and demographic trends raise concerns about the future capacity of the health system.

General measures of access show that elderly beneficiaries are more satisfied with access to care than other age groups. However, as is the case for other populations, certain beneficiaries—those in poor health, with low incomes, and without supplemental insurance—are more likely to report difficulty than others. In addition, some beneficiaries are not receiving appropriate preventive or primary care services.

In this chapter

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 - Beneficiaries' ability to obtain care
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A basic goal of the Medicare program is to ensure that elderly and disabled Americans have access to appropriate, high-quality health care. As part of its congressional mandate, MedPAC monitors Medicare beneficiaries' access to care generally and the impact of Medicare payment policies on access to Medicare covered services.

Evaluating access is a complex and difficult task, in part because there is no agreed upon measure of what constitutes appropriate access. The Institute of Medicine (IOM) has defined access to care as “the timely use of personal health services to achieve the best possible outcome” (IOM 1993). In this chapter, MedPAC evaluates access using a framework that relies on three interrelated dimensions: (1) the capacity of the health system to provide health care for Medicare beneficiaries, (2) Medicare beneficiaries' ability to obtain health services, and (3) Medicare beneficiaries' experiences obtaining clinically appropriate health care.

Evaluating access to care: an overview

Measuring access requires analysts and policymakers to piece together many types of information to create a balanced picture. There is no simple definition of access because the concept involves questions about both the availability and the actual use of services. A sufficient supply of providers does not guarantee that beneficiaries will be able to obtain care. Further, knowing that beneficiaries are obtaining care does not tell us whether they are receiving the right mix of services.

In addition to access being multidimensional, it is difficult to find valid and precise measures of access. National data may mask problems in specific regions or for certain types of beneficiaries, while data focusing on

targeted areas may not reflect the situation in other areas. Conclusions about access depend greatly on the types of questions asked. And different people may answer the same questions differently. The limitations of data require policymakers to gather and evaluate information on access from a variety of viewpoints.

Dimensions of access

Taking these factors into account, MedPAC evaluates Medicare beneficiaries' access to care from as many perspectives as possible along three interrelated dimensions.

- **Capacity of the health system to meet Medicare beneficiaries' needs.** There is no generally accepted standard for the health system capacity needed to provide care for Medicare beneficiaries (e.g., a ratio of providers or specialists to beneficiaries). One alternative is to rely on indirect indicators of capacity (e.g., the supply of providers, rates of entry and exit of providers). The efficiency and productivity of individual providers may also affect the capacity of the health system. In addition, it is important to evaluate the geographic distribution of providers and to consider beneficiaries' anticipated health care needs in both the short term and the long term.
- **Medicare beneficiaries' ability to obtain health care.** Large numbers of hospitals or physicians nationally or in a specific region may indicate the presence of enough health professionals to provide access to the Medicare population. Such numbers do not, however, answer the question of whether beneficiaries are actually obtaining care. Even if capacity is sufficient, a variety of factors, such as financial barriers or the presence of complex medical needs, may pose barriers to beneficiaries' obtaining care.

- **Appropriateness of the care Medicare beneficiaries receive.**¹ The most complex dimension of access is appropriateness of care—that is, whether Medicare beneficiaries are receiving the right care in the right setting at the right time. Defining appropriate care is difficult, but evidence-based guidelines have been developed for an increasing number of clinical conditions. Such guidelines, which call for specific procedures or treatment regimens, can be used to measure appropriateness of care in some settings. They can also be used to determine if beneficiaries are receiving beneficial preventive services. In addition, certain conditions termed “ambulatory care sensitive conditions,” if treated appropriately in the ambulatory setting, need not result in hospitalizations. Hospital admissions or emergency department (ED) use for these conditions may indicate inadequate access to ambulatory settings or services, or inadequate care management.

Measures of access to care

Conclusions about access to care depend heavily on which data are used and which questions are asked. Some measures focus on whether beneficiaries can find any type of care, whereas others focus more on the willingness of physicians to accept Medicare patients. Other measures look at the care experience through waiting times or through delays in obtaining care.

Many current data are designed to produce national estimates—providing a general impression of access to care—but may mask local variation. For example, although a Center for Studying Health System Change (HSC) survey of physicians in 2001 found that 71.1 percent of physicians overall were willing to take all new Medicare patients—meaning that they accepted all new Medicare patients who wished to make appointments—only

1 Measures in this dimension of access overlap significantly with measures of quality. However, the reason behind identified problems could either be an access concern—the beneficiary did not take the time to obtain the necessary care or tried, but was not able to obtain it from a provider; or a quality concern—the beneficiary did obtain care, but was not given the right type of care.

55 percent of physicians in Seattle were willing to do so. Because access to care is often driven by local market conditions, it is also important to distinguish between isolated problems and those that could signal emerging systemic problems.

Different questions may lead to different conclusions. In the physician survey noted above, although only 55 percent of physicians in Seattle said they were willing to take all new beneficiaries, only 8 percent of Medicare beneficiaries said they delayed or put off obtaining care. So, it is unclear from these apparently conflicting findings whether beneficiaries have a problem obtaining care in Seattle.

Assessments of access to care are also subjective, to some degree. For example, in the MedPAC analysis discussed in a later section of this chapter, highly educated persons reported more problems accessing care than less educated persons. It seems unlikely, at least intuitively, that these self-reports capture a true difference in beneficiaries' ability to obtain care. Rather, they are more likely the result of different expectations.

Measures of use are also limited in what they can tell us about access. Data on these measures tell us more about how often beneficiaries use certain services than about the appropriateness of those services.²

Data on access to care

The ability to measure access also depends on the availability and utility of data. The three main sources of data on access for Medicare beneficiaries are administrative data on the use of services, data generated directly from providers, and data generated from beneficiaries. Each of these sources provides information useful for evaluating several dimensions of access.

A common concern across all these types of data is timeliness—it is often difficult to find data that are recent enough to allow unambiguous conclusions about

current beneficiaries' experience accessing care. While focus groups and smaller surveys provide more timely information, results from these sources are often not as generalizable as large, multiyear surveys or administrative data.

That said, administrative utilization data offer several advantages. First, such data are routinely collected, thus minimizing the costs of obtaining them. Second, the data are usually extensive and provide information on all beneficiaries using services, so they can often answer many questions in a statistically valid manner. On the other hand, because administrative data are collected for billing purposes, and for tracking beneficiary eligibility and enrollment information, such data are not always organized in a manner that addresses policy or research questions.

Administrative data on claims paid can provide information on the capacity of the health system and on the needs of beneficiaries over time. These data tell policymakers how often a certain service is being used, whether use has increased or decreased, and which type of beneficiaries used certain types of services. Finally, they can provide some information on appropriateness of care by revealing whether beneficiaries are using the right types of services. For example, they can tell policymakers how many beneficiaries received appropriate preventive services, such as immunizations, and whether diabetics in the program received a test to measure their glucose levels. When combined with medical record review and clinical judgement, administrative data can provide even richer information on appropriateness of care.

Data collected directly from beneficiaries or providers may be obtained through broad surveys, targeted surveys, structured focus groups, or focused interviews with individuals. These type of data provide information on beneficiaries' and providers' unique perceptions of access. Different types of these data have distinct

advantages and disadvantages. Large, carefully designed surveys may provide broad, valid information and—depending on size and sample design—make it possible to identify variations among groups within the surveyed population. However, large surveys can be very expensive and take time to administer and analyze.

Smaller surveys and focus groups or interviews can provide rapid response to targeted questions, but the results may be less reliable and, because samples are small, are not generalizable to the whole population. But, because smaller surveys and focus groups or interviews make it possible to gather more in-depth information, they are useful in learning more about the reasons behind access barriers. They can also be used to provide more detailed in-depth targeted analysis of subpopulations.

The capacity of the health system to meet beneficiaries' needs

The sector-by-sector analysis presented in Chapter 2 for purposes of determining the adequacy of payment generally finds that there are sufficient hospitals, physicians, skilled nursing facilities, home health agencies, outpatient dialysis facilities, and ambulatory surgical centers at the national level to provide Medicare beneficiaries with access to Medicare-covered services. In the discussion that follows, we expand on analyses presented in Chapter 2. In particular, we focus on three areas of particular concern to policymakers because of recent payment system changes or other reasons—the availability of:

- physicians,
- post-acute services, and
- registered nurses.

2 For example, because many Medicare beneficiaries with supplemental coverage often have first dollar coverage, it is possible that these beneficiaries could be using some services of marginal value in addition to necessary care (MedPAC 2002).

We conclude, based on information currently available, that physicians and post-acute providers are available to most Medicare beneficiaries. Both provider types need to be monitored closely, however. Physicians appear to be growing more selective about the types of new patients they take from all insurance sources, including Medicare. Medicare beneficiaries' level of need for certain complex services seems to be a factor in skilled nursing facilities' decisions about accepting new patients. Our analysis also finds evidence of shortages in the availability of nurses, which may lead to access problems in the future.

In assessing the capacity of the health system to provide access in the coming years, it is important to consider the future needs of Medicare beneficiaries. Our analysis suggests that the Medicare program will face increasing pressures on resources as the numbers of beneficiaries increase and the needs of future beneficiary populations differ from those of current beneficiaries.

Availability of physicians

Physicians treat patients in all settings and are the major directors of health care. For that reason, their willingness to treat Medicare beneficiaries is a critical component of access. Recent reductions in Medicare physician payment rates have raised new concerns about beneficiary access to physicians.³ However, our analysis does not find widespread problems with Medicare beneficiaries' access to physician services. According to our findings:

- most physicians are still accepting Medicare beneficiaries in their practices;

- some physicians are being more selective, but they are also being selective about patients insured by other payers;
- physicians are as concerned about the administrative burden of Medicare as they are about reimbursement levels; and
- physician availability varies by regions.

Over the past several years, Medicare beneficiaries' access to physicians at the national level has been good. Pooled Medicare Current Beneficiary Survey (MCBS) data from 1996 to 1999 show that only 2.4 percent of beneficiaries said they had trouble getting care,⁴ and 91 percent said they had a usual doctor. While these beneficiary survey data are not yet available for more recent time periods, administrative and physician survey data through 2001 and 2002 do not suggest a decline in overall access to services.

As noted in Chapter 2B, the number of physicians furnishing services to beneficiaries has kept pace with the growth in the beneficiary population in recent years. From 1995 to 2001, the number of physicians per 1,000 beneficiaries grew slightly from 12.9 to 13.2. In addition, the volume of physician services beneficiaries use has also grown. Between 2001 and 2002 volume per capita grew by 4.3 percent. Almost all of these services are delivered by participating physicians.⁵ Based on claims data from the first six months of 2002, about 96 percent of allowed charges for physician services were for services furnished by participating physicians.

MedPAC has sponsored surveys of physicians in 1999 and 2002. MedPAC's 2002 survey looked at the impact of recent payment rate reductions on physicians' willingness to accept Medicare beneficiaries and their overall impression of the Medicare program in comparison to other payers on a variety of aspects. We also compared these findings to findings of other surveys. HSC surveyed both beneficiaries and physicians, but HSC's physician survey was conducted before the reduction in payment rates. The American Medical Association (AMA) sponsored an internet-based survey of physicians that was fielded after the payment rate reductions were in place.

The 2002 MedPAC survey reveals that a large majority of physicians are still taking some or all new Medicare beneficiaries. In the 2002 survey, 95.9 percent of physicians accepting any new patients from any insurer were accepting some or all new Medicare patients.

However, each of the three surveys did show that physicians are increasingly limiting the proportion of their patient care load insured by Medicare (Table 3-1). Between MedPAC's 1999 and 2002 survey, the percentage of physicians accepting all new fee-for-service (FFS) Medicare patients fell 6.3 percentage points from 76.4 percent to 70.1 percent. HSC's results were similar. Between 1997 and 2001, the percentage of physicians surveyed by HSC who said they accepted all new Medicare patients fell from 74.6 percent to 71.1 percent.⁶

The AMA survey, fielded after the payment rate reductions between February and April 2002, found a higher percentage of physicians—83 percent—willing to take

3 Fee updates for physicians will be -4.4 percent in 2003 and -5.1 percent in 2004 under current law. However, Medicare expenditures for physician services are still increasing. They rose from \$42 billion in 1996 to \$56 billion in 2001 and are expected to grow at an annual rate of 2 to 4 percent from 2001 to 2006, assuming these negative updates under current law.

4 It is important to note that "trouble accessing care" applies to more than physician services. As such, it may only be an indirect indicator of beneficiaries' ability to obtain care from a physician.

5 The number of participating physicians is often used as an indicator of whether physicians are available to beneficiaries. However, in this chapter we use the percentage of allowed charges because it is a more direct measure of beneficiary use of participating physicians. For a more detailed discussion of the relevance of this indicator see Chapter 2B.

6 These numbers may not represent an appropriate comparison because the HSC survey was fielded before the physician payment rate reductions in 2002.

all new Medicare beneficiaries.⁷ But, similar to the other surveys, the AMA survey also found that physicians were becoming increasingly selective about Medicare patients. When physicians were asked whether they had decreased or restricted the number or type of Medicare patients they treat in the last six months, 16 percent responded that they had. Another 8 percent said they planned to implement such restrictions in the next 12 months.

The phenomenon of physician selectivity in accepting new patients is not unique to Medicare, however. The MedPAC survey found that physicians' limiting their patient load was even more pronounced for patients with Medicaid or private health maintenance organization (HMO) coverage. Results show that, in general, physicians view patients insured by private sector FFS or preferred provider organization (PPO) options more favorably than those of any other payer (Table 3-2).

While the HSC survey did not distinguish among types of private insurance, it found that physicians were limiting their acceptance of both Medicare-covered and privately insured patients. The decline in the percentage of physicians willing to take all new privately insured patients was similar to the decline in their willingness to take all new Medicare patients, falling from 76.2 percent in 1997 to 70.8 percent in 2001.

Analysis of the MedPAC survey results reveals that the level of reimbursement was more often the reason physicians reported for limiting acceptance of new Medicaid or HMO patients than it was for Medicare patients. However, the percentage limiting their acceptance of new patients due to concern over reimbursement was slightly higher for Medicare—15.6 percent—than for private FFS/PPO patients—15.0 percent.⁸

TABLE 3-1

Share of physicians accepting all new Medicare patients, 1997–2002

	1997	1999	2001	2002
MedPAC*	N/A	76.4%	N/A	70.1%
Center for Studying Health System Change	74.6%	72.5%	71.1%	N/A
American Medical Association	N/A	N/A	N/A	83.0%

Note: N/A (not applicable).

*MedPAC's survey results reflect physician acceptance of new fee-for-service beneficiaries.

Source: MedPAC Survey of Physicians 1999 and 2002; Center for Studying Health System Change 1997 and 2001; and American Medical Association Survey of Physicians 2002.

TABLE 3-2

Acceptance of all or some new patients, by type of patient: MedPAC physician survey results, 1999 and 2002

Type of patient	1999	2002	Percent change
Private FFS and PPO patients	97.9%	99.3%	1.4*
FFS Medicare patients	96.8	95.9	-0.9
Uninsured patients ¹	90.5	92.8	2.3
HMO and other capitated plan patients ²	87.6	86.3	-1.3
Medicaid patients ³	73.7	69.5	-4.2*

Note: FFS (fee-for-service), HMO (health maintenance organization), PPO (preferred provider organization). Analysis limited to physicians who were accepting new patients (regardless of type) in the year. The response shows the percentage of doctors with patients of a type who are accepting new patients of that type into their practice. 1999 percentages were weighted to account for oversampling of selected surgical specialties. Missing values excluded from all calculations.

¹In 2002, uninsured included charity and self-pay patients; in 1999, it did not.

²In 2002, the Medicaid category included both HMO and fee-for-service patients; in 1999, this category included only fee-for-service patients.

³In 2002, the HMO category did not include Medicaid patients; in 1999, it did.

*Change since 1999 is significantly different from zero at the 95 percent confidence level.

Source: MedPAC Survey of Physicians, analysis of responses to Question 27B (2002) and Question 19 (1999).

Furthermore, the share of physicians concerned about reimbursement who said they limited new Medicare patients because of reimbursement levels—15.6 percent—was slightly less than the share who said they did so based on concerns about the administrative burden of Medicare—16.0 percent.

Medicare beneficiaries' access to physicians also varied by region. The HSC survey found that, while Boston ranked among the highest of the 12 markets in physician willingness to accept all new Medicare patients (at about 70 percent), Seattle ranked near the bottom (at about 55 percent). This measure would

7 It is interesting that this statistic is higher than the MedPAC or HSC findings. Some have suggested that because the physicians responding to the AMA survey agree ahead of time to participate in AMA surveys, they might be more likely to voice concern over Medicare policies. Clearly, the physicians in the AMA survey have concerns, but they do not appear any more negative towards Medicare than respondents to the other surveys who were chosen to be more nationally representative. The AMA survey was based on 520 respondents with a response rate of 26 percent, compared with about 800 respondents in the MedPAC survey with a 54.5 percent response rate and 12,500 respondents in the HSC survey with a response rate of 61 to 65 percent.

8 Seventy-seven percent of physicians voiced concern about reimbursement. Of these physicians, 15.0 percent said they limited their acceptance of new private FFS/PPO patients, 15.6 percent did so for Medicare patients, 38.0 percent did so for Medicaid patients, and 32.4 percent did so for all other HMO patients.

lead one to believe that Medicare beneficiaries have better access to physician care in Boston than in Seattle. However, taken together with results from other HSC questions, the difficulty of drawing conclusions about access from any single measure becomes apparent. On a different measure—delay for a check-up exceeding three weeks—Seattle beneficiaries appeared to have better access to physician services. In Boston, 54.6 percent of beneficiaries reported that they had to wait more than three weeks for an appointment for a check-up. In Seattle, only 24.2 percent of Medicare beneficiaries reported such a delay.

A survey of State Health Insurance Assistance Programs (SHIPs) and other Medicare advocacy organizations by the Medicare Rights Center, a consumer advocacy organization, identified eight states where access to physicians worsened after the payment rate reductions went into effect in 2002. The SHIPs and others reported an increase in the volume of calls from beneficiaries having difficulty finding doctors who would accept new Medicare patients in Tennessee, Missouri, Arizona, Virginia, New Hampshire, Texas, Rhode Island, and New Mexico. The Medicare Rights Center cautions, however, that they did not evaluate the level of increased calls—the characterization of an increase could be based on a handful of beneficiaries or a large volume of calls.

Availability of post-acute services

Post-acute services covered by Medicare include skilled nursing facility services provided after a hospital stay, as well as home health care. MedPAC's review of available evidence, as discussed below, generally supports the conclusion that Medicare beneficiaries' access to skilled nursing care and home health services remained stable after the implementation of prospective payment for skilled nursing and home health services. Nevertheless, Department of Health and Human Services (HHS), Office of Inspector

General (OIG) surveys and a small focus group sponsored by MedPAC did find that hospital discharge planners reported increasing problems in placing patients with particularly complex health problems in skilled nursing facilities (SNFs), and to a lesser extent home health agencies (HHAs), since the implementation of prospective payment systems (PPSs) in these sectors.

SNF services

Available evidence suggests that the capacity of SNFs to meet Medicare beneficiaries' post-acute care needs has remained relatively stable over the last several years from 1998 to 2002 (see Chapter 2C). Although 26 percent of hospital-based SNFs closed, the increase in the number of freestanding SNFs appears to have offset these closures. In fact, the number of covered days increased 4 percent from 1999 to 2000.

Opinion data from discharge planners also suggest that most Medicare beneficiaries have access to SNF services, although certain types of beneficiaries may experience more problems than others. In a series of studies by the OIG from 1999 to 2001, hospital discharge planners reported that beneficiaries generally had access to SNF care.⁹ About 5 percent of hospital patients who needed SNF care were described as being difficult to place, as defined by whether the surveyed discharge planner reported a delay in placement. Patients for whom SNF placements were difficult were characterized as patients for whom care was costly. Discharge planners said that patients needing rehabilitation services—for whom Medicare pays more generously—were not difficult to place.

In October 2002, MedPAC convened a focus group of 15 hospital discharge planners from a variety of regions and types of hospitals to discuss the impact of Medicare's prospective payment systems for skilled nursing facilities and home health care on Medicare beneficiaries' access to post-acute care (see text box). The findings from this focus group were

consistent with the OIG findings. Since the implementation of Medicare's SNF prospective payment system, hospital discharge planners reported they have had no problems getting SNFs to accept patients requiring rehabilitation services. However, they reported increased difficulty in getting SNFs to accept patients with particularly complex and costly health problems, even when beds were available.

What happens to beneficiaries who stay in the hospital longer because they cannot be placed in a SNF? Focus group participants told us that some patients are eventually placed in a SNF, but some are never placed and stay in the hospital until they can be discharged home. However, it is not clear whether longer hospital stays should be characterized as an access problem. Even though discharge planners may believe that the patient is ready to leave the hospital and be admitted to a skilled nursing facility, these patients may be able to obtain appropriate care in the hospital.

Home health care

There has been a sizeable drop in home health agencies and use of home health services, but this drop followed a period of dramatic increases in each. Twenty-four percent of home health agencies closed between 1997 and 1999. Since that time the number of home health agencies has remained stable, with the numbers entering the Medicare program roughly equivalent to those leaving. In addition, fewer beneficiaries have been using Medicare's home health benefit since 1997.

The declines in the number of agencies and the use of services occur in a historical context that includes several years prior to the implementation of Medicare's interim payment system and PPS for home health. During this time period the number of agencies, beneficiaries who used home health, and visits per beneficiary were increasing dramatically. The percentage of Medicare fee-for-service beneficiaries using home

⁹ The OIG did not repeat their survey in 2002 and has no plans to do so in 2003. MedPAC is recommending in this report that this series of surveys be continued.

Impact of Medicare's SNF and home health PPS on access to post-acute care: findings from MedPAC's discharge planner focus group

In October 2002, MedPAC convened a focus group of 15 hospital discharge planners from a variety of regions and types of hospitals to discuss the impact of the skilled nursing facility (SNF) and home health prospective payment systems on beneficiaries' access to post-acute care. Focus group participants told us that SNF placements are delayed for certain types of patients at least one day between 5 percent and 25 percent of the time, with some beneficiaries with delayed placements remaining in the hospital for significant periods of time. It was unclear from the discussion whether this delay resulted in the inability of beneficiaries to obtain appropriate care. According to the discharge planners, under the PPS, patients requiring rehabilitation services—for whom Medicare pays more generously—have no problem being placed in SNFs. Hard-to-place patients included those:

- needing dialysis,
- needing expensive medications,
- needing ventilator services,
- requiring total parenteral nutrition,
- having infectious diseases, and
- having mental illness or cognitive impairment.

Patients with infectious diseases, end-stage renal disease, and mental impairments were difficult to place before the PPS was implemented, but the discharge planners said placement was even more difficult after implementation. They suggested that SNFs were eager to take rehabilitation patients because payments for these services were more generous.

The delays in placing patients post-PPS do not necessarily relate to the lack of available beds in freestanding SNFs, according to the discharge planners.

Even when beds are available, freestanding SNFs often will not take complex patients.

The focus group was not as concerned about placing beneficiaries needing home health care as they were about placing those needing SNF care. However, a few planners said that it was harder to place beneficiaries for home health services if they:

- lived in rural areas, especially if therapy, such as physical or speech, was needed;
- required extensive supplies, such as wound treatments; or
- were unable to remain safely at home.

The group did not indicate that these beneficiary groups were either newly hard-to-place or more hard-to-place after the implementation of the PPS. ■

health services in 2001 was 5.5 percent, similar to the percentage in 1991 (6.5 percent). But, at the high point of usage in 1996, 9.0 percent of Medicare beneficiaries used home health services. The increase in use of services in the early and middle 1990s was the primary reason that Congress implemented the PPS, clarified eligibility rules, and strengthened fraud and abuse enforcement in the program.

Despite the decrease in use due to policy changes, the OIG surveys and MedPAC discharge planner focus group (see text box) did not identify widespread problems finding home health care for beneficiaries

discharged from hospitals. The OIG survey did reveal that it was difficult to place a small subset of hospital patients who needed home health care. These patients tended to be those with more complex care needs.

We have less information on beneficiaries referred to home health care from the community. While the MedPAC and earlier OIG surveys did not address this topic, another 2001 OIG survey did. The OIG generally found the reported experiences of “community beneficiaries” to be similar to those of beneficiaries discharged from the hospital into Medicare home health services.¹⁰

Availability of nurses

The supply and retention of registered nurses is an important concern for the entire health system. The Bureau of Health Professions within HHS has reported a growing shortage of nurses, which is expected to worsen by 2010 and thereafter. In a recent survey, hospital administrators report historically high vacancy rates for nurses, as well as other types of personnel (First Consulting Group 2001).¹¹ Nursing homes, home health agencies, health systems, and other organizations have also reported difficulties filling nursing positions.

10 These findings were based on surveys of 21 physicians, 30 home health agencies, 60 aging network representatives, and beneficiaries already receiving services in 10 states. The OIG has no plans to repeat the study. MedPAC is recommending in this report that the Secretary continue this type of study on beneficiaries' access to home health services.

11 These administrators also noted difficulty filling positions for other personnel such as clinical pharmacists and imaging technicians. MedPAC will continue to monitor these capacity issues, but limits the discussion in this chapter to nurses.

In 2000, the Bureau of Health Professions at HHS calculated a shortage of 110,000 nurses, which represents a 6 percent gap between the supply of full-time equivalent registered nurses and the demand for those nurses. As illustrated in Figure 3-1, this gap is expected to grow to 12 percent by 2010 and then worsen dramatically to around 20 percent by 2015, when providers will face unprecedented demand from Medicare beneficiaries seeking services.

Available data do not provide firm evidence that this shortage has compromised access for Medicare beneficiaries. However, in a recent survey, hospital administrators cited emergency department diversions, emergency department overcrowding, and lesser ability to staff beds as the top three problems caused by nursing and other personnel shortages (First Consulting Group 2001). These problems could lead to delays in receiving inpatient and urgent

care, as well as increased pressure for early discharges.¹² In addition, as the number of beneficiaries increases in the future, ensuring an adequate supply of nurses and other health professionals to meet the growing needs of Medicare beneficiaries will be critical.

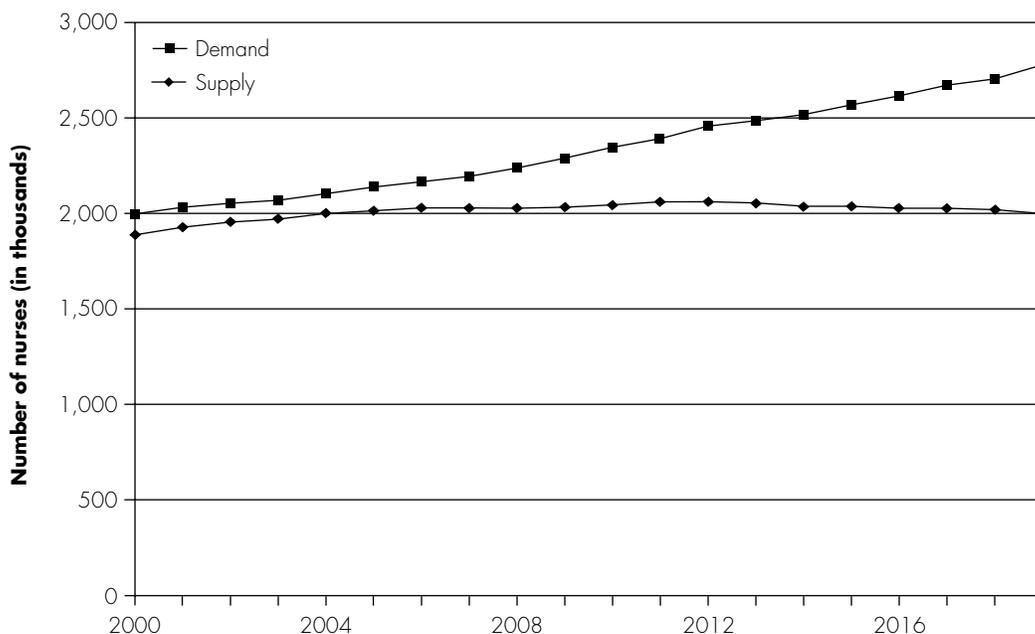
The reasons behind these shortages have been documented in several studies and reports. Factors include an aging existing workforce, fewer young persons choosing and graduating from nursing school, dissatisfaction with the work environment, an increasing number of choices of places to work both in and out of nursing, and declining relative earnings. The average age of working registered nurses has increased, resulting in a higher proportion of nurses who are approaching retirement age. Nurses also retire at an earlier age than other workers, often in their mid- and late-50s (Berliner and Ginzberg 2002). And not all of these older nurses are being replaced by new graduates entering the

workforce. Twenty-six percent fewer people graduated from nursing schools in 2000 than in 1995 (Bureau of Health Professions 2002). One reason younger persons may not be choosing nursing is that real earnings, the amount available after adjusting for inflation, have been relatively flat since 1991 (Bureau of Health Professions 2002).

Some observers suggest that the nursing shortage may be cyclical and therefore addressed over time by market forces, such as increases in wages. Most experts on the shortage of nurses, however, suggest that the gap between individuals entering the nursing workforce and the aging of the current nursing workforce is too large to be addressed by higher wages. They also point to data suggesting that dissatisfaction with working conditions, rather than low wages, is one of the primary reasons nurses are retiring early and fewer persons are entering the profession. Aiken and colleagues report in

FIGURE 3-1

Supply and demand projections for full-time equivalent registered nurses, 2000–2020



Source: Bureau of Health Professions, registered nurse supply and demand projections.

¹² While not directly discussed in this chapter, much research has also focused on the impact that nursing shortages have on the quality of care, both in nursing homes and hospitals.

a recent article that more than 40 percent of nurses working in hospitals are dissatisfied with their jobs. Recent data from New York City indicate that 50 percent of new nurses in hospitals leave before their second year of employment (Berliner and Ginzberg 2002).

Beneficiaries' needs for health services: health system capacity to provide access in the coming years

In assessing the capacity of the health care system to provide access to Medicare beneficiaries, it is important to understand beneficiaries' needs for services and how their needs can be expected to change in the coming decades. In this section we consider beneficiaries' future needs by looking at anticipated changes in the prevalence of certain conditions, race and ethnicity, age, and gender, and how these changes will challenge the health care system.

MedPAC's assessment of current capacity, as described in Chapter 2, is that for the most part the health system is adequate to meet beneficiaries' needs. However, the rate of increase in the number of Medicare beneficiaries is expected to be higher than the rate of increase in the overall population, doubling over the period 2000 to 2030. The dramatic rise in the number of beneficiaries and changing demographics of Medicare beneficiaries may alter the types of services needed in the future.

More beneficiaries will mean that, based on current patterns of use, demand for almost all services will rise.¹³ Although new technology breakthroughs and treatment modalities could change the way care is delivered, current utilization patterns provide a reasonable baseline for predicting which types of services will be in greater demand. Combined with information on the types of beneficiaries

who have greater difficulty obtaining care, this analysis may also identify populations that could need more careful monitoring in the future.

In addition to specific types of services for beneficiaries, a healthcare workforce with the skills necessary to treat an older and disabled population will be needed. Although it may be difficult to provide geriatric training to enough new physicians to appropriately treat an increasingly elderly patient population, it may be possible to train current professionals to better manage these patients.¹⁴

Beneficiaries' care needs by age

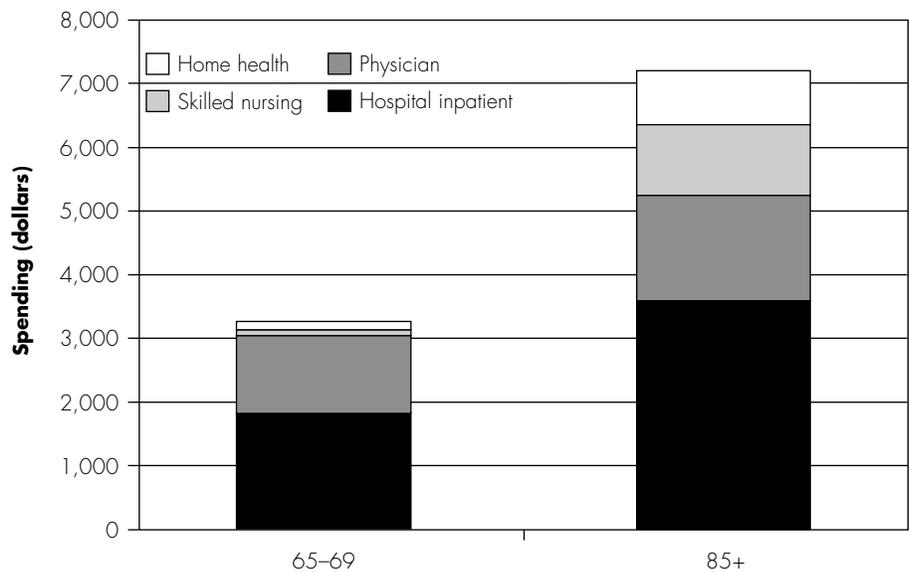
Analysis of census data shows that the fastest growing segment of Medicare beneficiaries has been individuals over

age 85, typically referred to as the "old, old." Even though the rate of growth for this subpopulation is expected to fall from its recent high levels, this population will be significantly larger in the future.

Beneficiaries over age 85 use more of all services than younger beneficiaries, some of which are Medicare-covered and others which are not. They use disproportionately more home health and SNF services than other populations (Figure 3-2). Beneficiaries this age who use the ED do so more frequently than younger beneficiaries. The greatest driver of total health care costs for the over-85 population is nursing home expenditures. However, the vast majority of these are paid for by Medicaid and out-of-pocket payments (Spillman and Lubitz 2000).

FIGURE 3-2

Per capita Medicare spending for beneficiaries ages 65-69 and 85 and over, selected services, 1998



Source: MedPAC analysis of National Center for Health Statistics data.

13 While there is some evidence that disability and functional capacity have improved on some measures among the elderly over the last decade, research has not shown a clear trend with regard to the most severe forms of age-related disability, such as cognitive impairment and the ability to perform activities of daily living; therefore these improvements may not affect usage patterns in the future (Freedman, Martin, Schoeni 2002).

14 A report issued jointly by the Merck Institute of Aging and Health and the Gerontological Society of America speculates that even if geriatric training was mandatory in every medical school, it would take more than 40 years for physicians with geriatric training to replace those without such training. They suggest this would be too long to meet beneficiaries' needs and that training the existing health work force would be more effective.

Beneficiaries' care needs by race and ethnicity

The racial and ethnic composition of the Medicare population is expected to continue to change in coming years. Census data show that, from 2000 to 2050, the percentage of the Medicare population that is white, non-Hispanic is expected to decrease from 84 to 64 percent. The growth in the number of Hispanics is even greater than the increase in the number of African Americans, so that by 2050 there will be more Hispanics than African Americans in Medicare.

Minorities in Medicare are less likely to report having a usual doctor or a usual source of care other than either an urgent care center or ED. CMS data from the 2000 MCBS show that approximately 10 percent of both Hispanics and African Americans report they use an urgent care center or the ED as their usual source of care (compared with 2 percent of non-Hispanic whites). As described later in this chapter, the ED provides important urgent care, but some of this urgent care is for acute manifestations of chronic conditions that could be more efficiently managed through an ongoing relationship with a physician. If minorities' reliance on the ED as a usual source of care continues, access problems may grow with increases in the numbers of minority beneficiaries.

National Center for Health Statistics (NCHS) data also show that African Americans over 65 use more home health services than other populations so this service use will also need to be monitored in the future.

Beneficiaries' care needs by health conditions

Data from the Federal Interagency Forum on Aging-Related Statistics show that the leading causes of death for those over 65 are heart disease, stroke, cancer, diabetes,

chronic obstructive pulmonary disease, pneumonia, and influenza. Five of these are chronic conditions. While death rates have fallen for heart disease and stroke, their prevalence and that of other important chronic conditions has not. Between 1984 and 1995, prevalence rates of heart disease, stroke, diabetes, and cancer all increased.

The prevalence of chronic conditions also varies by race and ethnicity. African Americans in 1995 were more likely to have diabetes, stroke, or hypertension than whites or Hispanics. However, whites were more likely to report cancer than either African Americans or Hispanics (Federal Interagency Forum on Aging-Related Statistics 2000).

The increasing prevalence of chronic conditions and the ability to manage them could have several effects on the services needed by Medicare beneficiaries in the future. Because these conditions are long-term diseases, they require ongoing care management to prevent acute episodes from occurring and may affect the type of care provided for acute episodes for other conditions. Caregivers will need to be able to coordinate multiple needs and treatment regimens across settings and over time. In addition, services that prevent acute episodes and/or increased disease severity, such as blood pressure screening and management, diabetic checks, and mammograms, will be increasingly important as the prevalence of chronic conditions increases.

Care needs of disabled beneficiaries

The number of persons eligible for Medicare on the basis of disability is increasing. The population under age 65 who qualify for Medicare on the basis of a disability has grown from 2.2 million people in 1975 to 5.6 million in 2000; this number is projected to reach 8.8 million in 2017 (MedPAC 2002).

While nearly two-thirds of the current Medicare disabled have physical disabilities, the remainder qualify on the basis of a mental disorder. These beneficiaries account for a disproportionate amount of Medicare spending (Foote and Hogan 2001). Because people with mental conditions usually qualify for Medicare at a much younger age, and therefore are eligible for Medicare for a longer period of time, they will continue to become a larger proportion of the disabled population.¹⁵ This could mean an increase in the need for psychiatric services and for appropriate management of pharmaceuticals specific to mental conditions.

Beneficiaries' care needs by sex

Women make up a disproportionate share of Medicare beneficiaries and will increase as a percentage of the over-65 population in the future (Federal Interagency Forum on Aging-Related Statistics 2000). Females make up 56 percent of the overall Medicare population and 71 percent of the over-85 population. Women live alone more often than men. According to 2000 MCBS data, 72 percent of the nearly 30 percent of Medicare beneficiaries who lived alone were women. Women are also more likely to have lower incomes and less likely to have employer-sponsored supplemental insurance (Schoen et al. 1998).

MedPAC analysis presented in the next section finds that lower incomes are associated with difficulty obtaining care, so the increase in the number of women with lower incomes could heighten access concerns in the future. In addition, women's lack of a caregiver at home may mean that the need for home health services will increase and that more beneficiaries may need to be admitted to nursing homes.

¹⁵ The reason the age of eligibility affects the proportion is that every year fewer persons with mental conditions leave the program compared with the elderly and the physically disabled. The physically disabled tend to sign up for Medicare closer to the age of 65 and thus are usually eligible for Medicare benefits for a shorter period of time.

Beneficiaries' ability to obtain care

Medicare beneficiaries in general report good access to health care services. Compared with younger populations, Medicare enrollees appear to have better access to care and, over time, they report improved access. Certain subpopulations, however, report higher levels of access problems than others. All else being equal, those in poor health, those who live in poverty, and those without supplemental health coverage report higher levels of access problems. Finally, the disabled under-65 population reports substantially higher rates of access problems than the aged Medicare population.

In this section, we first review current data on access to care among the Medicare population. Second, we present the results of a MedPAC study on the influence of beneficiary characteristics on access to care for the Medicare population.

What is currently known about Medicare beneficiaries' ability to obtain care?

Overall, Medicare beneficiaries say they have good access to services. This perception has become more prevalent over time and is stronger for the elderly than for any other age group. Being insured by Medicare has made it possible for an otherwise difficult-to-insure and frailer population to have access to care. According to 1999 MCBS data, 94.3 percent of beneficiaries reported that they had a usual source of care and only 4 percent reported that they had trouble getting care. MCBS data also indicate that the percentage of Medicare beneficiaries delaying care because of cost declined over the time period 1991 to 2000.

Another access measure, the percentage not seeing a doctor during the past year, also declined during this time period. Data from the National Health Interview Survey (NHIS) from 2001 also show that the percentage of people over the age of 65 who report that they failed to receive care because of financial barriers is very small, at 2.1 percent.

Overall, national surveys show that Medicare beneficiaries report fewer problems than other adults with access to care. Medical Expenditure Panel Survey (MEPS) data show that, of those requiring urgent care, older persons were more likely than adults ages 18 to 64 to report that they always received the care as soon as they wanted (66 percent vs. 51 percent). Persons over 65 also report that they delay care less often than those close to the Medicare age. On the 2001 NHIS, 5.6 percent of those age 55 to 64 reported delaying care because of cost versus 2.1 percent of those over age 65 (Cohen 2003).

One recent survey of beneficiaries found an increasing rate of access problems, but the increases were not limited to Medicare beneficiaries. The 2001 HSC survey found that 11 percent of Medicare seniors reported that they "did not get or put off care." This was an increase from 1997, when 9.1 percent of seniors reported such occurrences. On the same population survey, 40.3 percent of Medicare seniors reported waiting a week or more for an appointment for a specific illness, an increase over 34.3 percent in 1997. Privately insured near-elderly also reported increasing access problems, although not on the same measure. The proportion of privately insured persons between the ages of 50 and 64 reporting access problems increased from 15.2 percent in 1997 to 18.4 percent in 2001.

Multivariate analysis of beneficiary characteristics that influence beneficiaries' ability to obtain care

Although Medicare appears to have been largely successful in ensuring access to care for many beneficiaries, certain subgroups seem to have more access problems than others. A large body of published research suggests that persons of low income, persons with no or inadequate insurance, and individuals from racial and ethnic minority groups may have lower access to care regardless of their insurer (Mayberry, Mili, and Ofili 2002; Aday, Fleming, and Anderson 1984; Gornick, Eggers, and Reilly 1996; Gornick 2000).¹⁶

To determine empirically which beneficiary characteristics have the most influence on access to care, MedPAC conducted a multivariate analysis using five different outcome measures representing different dimensions of access to care (see text box, p. 164).

Across most measures of access, MedPAC found that, all other factors being equal, beneficiaries who were in poor health, those who were living in poverty, and those without any supplemental insurance most consistently reported access problems. Specific findings related to each of these beneficiary characteristics are discussed further below (Table 3-4, p. 166).

- **Health status.** Beneficiaries in excellent health were only 20 percent as likely to report trouble getting care and only 30 percent as likely to report delaying care because of costs as well as not seeing a doctor when needing to, compared with those in poor health. Interestingly, beneficiaries in excellent health were more likely to report not having a usual source of care or usual doctor than those in

¹⁶ There has been considerable interest in variations across subgroups in access to care. The Institute of Medicine (IOM) was commissioned to develop a set of indicators for monitoring access to personal health services over time at the national level. In its publication, *Access to health care in America*, the IOM noted that because most elderly people are entitled to Medicare benefits, they are frequently neglected in discussions of access (IOM 1993). Given that Medicare benefits are not comprehensive, the IOM noted that disparities in access among this population may exist and should be explored further. In a subsequent study on race and ethnicity in the U.S., *Unequal treatment: confronting racial and ethnic disparities in health care*, the IOM concluded that racial and ethnic minorities tend to receive a lower quality of healthcare, compared with nonminorities, even after controlling for access-related factors (IOM 2002).

Beneficiary characteristics and outcome measures in the MedPAC analysis

To assess Medicare beneficiaries' ability to obtain care, MedPAC used beneficiaries' self-reports of the following measures: (1) trouble getting care; (2) delaying care because of costs; (3) having a health condition and needing to see a doctor but not seeing one; (4) having no usual source of care; and (5) having no usual doctor. Four years of Medicare Current Beneficiary Survey data (1996–1999) were pooled to yield a sample large enough to examine differences across subgroups of beneficiaries. The sociodemographic and other characteristics of Medicare beneficiaries examined in MedPAC's study include gender, race, age, living arrangements, income (income-to-poverty ratio), insurance status, and prescription drug coverage (Table 3-3).

On each measure of access, MedPAC calculated two types of statistics for each subgroup of beneficiaries:

- the proportion who reported an access to care problem (*the unadjusted percentage*); and
- the likelihood of reporting an access problem after controlling for the remaining beneficiary characteristics listed in Table 3-4 (*the adjusted odds ratio*). For example, an adjusted odds ratio of 0.70 for delaying care among Hispanics can be interpreted as follows: all factors other than ethnicity held constant, Hispanics were 70 percent as likely as whites (the reference group) to report delaying care because of costs. ■

worse health. However, this finding may reflect the fact that such beneficiaries do not require many health services.

- **Supplemental insurance status.** A beneficiary's supplemental insurance status is also an important variable influencing self-reported access to care.¹⁷ All other factors being equal, beneficiaries with supplemental coverage were 13 to 75 percent as likely (depending on the type of additional coverage and the specific measure examined) to report access problems as beneficiaries with Medicare FFS coverage only. This result is not unexpected given the limits of the Medicare core benefit package and the cost-sharing

requirements. Although representing only about 6 percent of beneficiaries in our sample, those with coverage limited to Medicare fee-for-service reported higher levels of access problems than any other aged beneficiary subgroup: 11.9 percent reported not seeing a doctor when necessary, 16.1 percent reported delaying care because of costs, 22.3 percent reported no usual source of care, and 27.9 percent reported no usual doctor.¹⁸

Although all forms of supplemental coverage improved Medicare beneficiaries' self-reported access to care, there was little difference in access to care based on the four types of supplemental insurance reported.

Medicare HMO beneficiaries reported better access than those with Medicare fee-for-service coverage only.

- **Income.** All other factors being equal, beneficiaries with the highest incomes were less likely to report access problems than those with lower incomes across most measures of self-reported access. Beneficiaries with the middle and highest incomes were about 75 percent as likely as beneficiaries at or below the poverty level to report not seeing a doctor when they needed to, not having a usual source of care, and not having a usual doctor. Beneficiaries with the middle and highest incomes were 25 to 50 percent as likely as beneficiaries at or below the poverty level to report delaying care because of costs. Finally, the poorest beneficiaries—those below 50 percent of the poverty level—were a third more likely than those between 50 and 100 percent of the poverty level to report needing to see a doctor but not doing so. Other researchers have suggested that the role of income in influencing access to care, as well as receipt of appropriate care examined in other studies, may be related to factors such as better transportation, better environment, and additional resources that may be available to wealthier beneficiaries (Gornick 2000).
- **Race/ethnicity and socioeconomic status.** Studies have found important differences in access by race/ethnicity and socioeconomic status (Schoen 1998; Fiscella 2000; MedPAC 2002; Gornick, Eggers, and Reilly 1996; Schulman et al. 1995; IOM 1993; IOM 2002). Race/ethnicity and socioeconomic status are closely intertwined, however, and it is often difficult to isolate their respective

17 We define someone as having supplemental insurance if they are enrolled in Medicare FFS and have either Medicaid, Medigap, or employer-sponsored insurance, or if they are in a Medicare HMO instead of Medicare FFS.

18 The 6 percent reflects 1996–1999 MCBS data, in contrast to 2000 data cited elsewhere in this report that suggest a higher proportion of Medicare beneficiaries having no supplemental insurance coverage.

roles in affecting access to care.¹⁹ Notably, in MedPAC's multivariate analysis, race and ethnicity receded in importance when other factors, such as income and health status, were taken into account. Specifically, race and ethnicity were not as consistent predictors of access problems as income, health status, or supplemental insurance status in four of the five access measures, but race and ethnicity were highly significant in influencing whether a beneficiary reported having a usual doctor. African Americans were one-and-a-half times more likely than whites to report not having a usual doctor. Similarly, when all other factors were held constant, Hispanics were almost twice as likely as whites to report not having a usual doctor and almost one-and-a-half times as likely as whites to report not having a usual source of care. However, Hispanics were less likely than whites, when all other factors were statistically controlled, to report other access problems.

- **Education.** A beneficiary's education level influenced self-reported access measures in unanticipated ways. Specifically, beneficiaries with the highest education levels were most likely to report concerns with accessing care. Beneficiaries with a college education were 20 to 60 percent more likely to report having trouble getting care, delaying care because of costs, or not seeing a doctor when necessary. However, they were as likely as those with only a high school diploma to report both a usual source of care and a usual doctor. Perhaps this finding reflects the higher expectations of individuals who have higher education levels.

**TABLE
3-3**

Characteristics of the noninstitutionalized aged Medicare population, 1996–1999

Characteristics	Percent of the Medicare population
Total (N = 34,561)	100%
Sex	
Male	42
Female	58
Race/ethnicity	
White, non-Hispanic	84
African American, non-Hispanic	7
Hispanic	6
Other	3
Age	
65–74	50
75–84	39
85+	11
Health status	
Excellent/very good	46
Good/fair	48
Poor	6
Urbanicity	
Urban	75
Rural	25
Living arrangement	
Alone	32
With spouse	53
With others	14
Education	
No high school diploma	36
High school diploma only	31
Some college or more	33
Income to poverty ratio ¹	
< .5 extreme poverty	5
.5–1 poverty	15
1–2 low income	33
2–4 middle income	32
4+ high income	15
Supplemental insurance status	
Medicare only	6
Medicare and Medicaid	10
Medicare and Medigap	27
Medicare and employer-sponsored	38
Health maintenance organization	16
Other ²	3
Prescription drug coverage	
Yes	72
No	28

Note: All end-stage renal disease beneficiaries and institutionalized beneficiaries are excluded from the analysis.

¹Calculated by dividing self-reported family income by the poverty threshold.

²Other includes Medicare and Department of Defense, and Medicare and Department of Veterans Affairs.

Source: Medicare Current Beneficiary Survey, Access to Care, and Cost and Use files, 1996–1999 combined.

¹⁹ Since socioeconomic data are unavailable in the Medicare administrative databases, race and ethnicity are often used as proxies, although they have been shown to represent different issues. When socioeconomic data have been used in Medicare studies, they are often reported as ecologic variables using ZIP code level information which may not necessarily correlate to the income of the specific individual included in the study. A major advantage in using MCBS data, therefore, is the availability of both race/ethnicity and individual income data.

**TABLE
3-4**

Aged Medicare population reporting access to care problems, by beneficiary characteristics, 1996-1999

Characteristic	Had trouble getting care		Delayed care because of cost		Needed to see doctor but did not		No usual source of care		No usual doctor	
	Unadjusted percent	Odds ratio ¹	Unadjusted percent	Odds ratio ¹	Unadjusted percent	Odds ratio ¹	Unadjusted percent	Odds ratio ¹	Unadjusted percent	Odds ratio ¹
All	2.4	N/A	4.5	N/A	6.7	N/A	6.1	N/A	9.1	N/A
Sex										
Male (R)	2.2	1.0	3.9	1.0	6.1	1.0	7.0	1.0	10.8	1.0
Female	2.5	1.09	5.0	1.20*	7.2	1.16*	5.5	0.68*	7.9	0.61*
Race										
White (R)	2.2	1.0	4.2	1.0	6.5	1.0	5.7	1.0	7.9	1.0
African American	3.6	1.07	7.1	0.85	8.9	0.99	7.9	1.07	15.8	1.54*
Hispanic	3.4	0.96	5.6	0.70*	7.3	0.79*	9.0	1.42*	17.0	1.84*
Age										
65-74 (R)	2.6	1.0	5.3	1.0	7.4	1.0	6.6	1.0	9.8	1.0
75-84	2.2	0.82*	4.1	0.66*	6.1	0.75*	5.6	0.85*	8.4	0.85*
85+	2.2	0.71*	2.8	0.34*	6.0	0.67*	5.7	0.71*	8.5	0.72*
Health status										
Excellent/very good	1.6	0.19*	2.8	0.30*	1.6	0.32*	7.8	1.94*	10.5	1.56*
Good/fair	2.5	0.32*	5.3	0.51*	4.8	0.52*	4.5	0.97	7.6	0.92
Poor (R)	7.8	1.0	11.3	1.0	7.7	1.0	5.1	1.0	9.5	1.0
Urbanicity										
Urban (R)	2.5	1.0	4.1	1.0	6.4	1.0	5.8	1.0	8.9	1.0
Rural	2.0	0.86	5.8	1.09	7.6	1.12	7.0	0.99	9.6	0.94
Living arrangement										
Alone (R)	2.6	1.0	5.3	1.0	7.0	1.0	6.9	1.0	10.2	1.0
With spouse	1.9	0.79*	3.6	0.79*	6.3	0.95	5.2	0.69*	7.7	0.68*
With others	3.7	1.19	6.5	0.89	8.0	0.94	7.7	0.95	11.9	0.90

continued on next page

TABLE 3-4

Aged Medicare population reporting access to care problems, by beneficiary characteristics, 1996-1999

Characteristic	Had trouble getting care		Delayed care because of cost		Needed to see doctor but did not		No usual source of care		No usual doctor	
	Unadjusted percent	Odds ratio ¹	Unadjusted percent	Odds ratio ¹	Unadjusted percent	Odds ratio ¹	Unadjusted percent	Odds ratio ¹	Unadjusted percent	Odds ratio ¹
Education										
No high school diploma	2.8	1.16	6.7	1.46*	8.1	1.19*	7.3	1.10	11.6	1.09
High school diploma only (R)	1.8	1.0	3.4	1.0	5.9	1.0	5.7	1.0	8.2	1.0
Some college or more	2.5	1.60*	3.2	1.38*	6.1	1.21*	5.1	0.92	7.4	0.92
Income to poverty ratio ²										
< .5 extreme poverty	3.9	1.00	8.5	1.15	11.1	1.34*	8.9	1.10	15.6	1.19
.5-1 poverty (R)	3.7	1.0	8.1	1.0	8.9	1.0	8.2	1.0	13.3	1.0
1-2 low income	2.2	0.86	5.7	0.89	7.0	0.92	6.5	0.89	9.4	0.85*
2-4 middle income	1.9	0.90	2.6	0.51*	5.6	0.80*	4.9	0.74*	7.0	0.74*
4+ high income	2.1	1.00	1.3	0.25*	5.1	0.74*	4.9	0.72*	6.8	0.72*
Supplemental insurance status										
Medicare only (R)	4.4	1.0	16.1	1.0	11.9	1.0	22.3	1.0	27.9	1.0
Medicare and Medicaid	4.5	0.92	7.9	0.43*	9.9	0.74*	7.1	0.29*	13.3	0.36*
Medicare and Medigap	1.3	0.33*	3.8	0.30*	5.6	0.53*	5.9	0.29*	7.7	0.29*
Medicare and employersponsored	1.7	0.49*	2.9	0.31*	6.1	0.66*	5.2	0.28*	7.0	0.26*
Health maintenance organization	3.6	1.04	2.7	0.27*	6.1	0.66*	2.7	0.13*	5.4	0.17*
Prescription drug coverage										
Yes (R)	2.4	1.0	3.6	1.0	4.8	1.0	4.8	1.0	7.9	1.0
No	2.4	1.21	7.1	1.42*	9.5	1.17*	9.5	1.20*	12.1	1.02

Note: N/A (not applicable), R (reference group). All end-stage renal disease beneficiaries and institutionalized beneficiaries are excluded from the analysis.

¹Each odds ratio is adjusted in the multiple regression analysis for all other variables in Table 3-3.

²Calculated by dividing self-reported family income by the poverty threshold.

*Indicates that the odds ratio is significant at an approximate P<0.05. To mitigate the design effects of the Medicare Current Beneficiary Survey (MCBS), a significance level of P< 0.025 was used to approximate a 0.05 significance level. Subsequent adjustment for the MCBS design effects may alter the statistical significance for odds ratios of borderline significance.

Source: MCBS Access and Cost and Use files, 1996-1999 combined.

- **Disabled.** MedPAC conducted a separate analysis to examine access to care among the disabled population. The analysis was also done using 1996–1999 pooled MCBS data. Compared with the aged Medicare population, the disabled under-65 population reported considerably higher access problems: 8.9 percent of the disabled versus 2.4 percent of the aged population reported trouble getting care; 19.8 percent versus 4.5 percent reported delaying care because of costs; 18.3 percent versus 6.7 percent reported not seeing a doctor when they needed to; and 16.3 percent versus 9.1 percent reported not having a usual doctor (data not shown). Similar proportions of each population reported no usual source of care.

Beneficiaries' ability to obtain appropriate care

Up until this point, we have discussed whether the health system has the capacity to meet Medicare beneficiaries' current and future needs, and we have examined the experiences of different types of beneficiaries obtaining care. But just because beneficiaries are able to obtain care does not necessarily mean that they are obtaining *appropriate* care. Evaluating various measures of appropriate use of services we found:

- many beneficiaries are not receiving preventive and primary care services that can help manage a condition that might otherwise result in an acute episode;

- some beneficiaries are ending up in the hospital with conditions that might have been prevented if their care had been managed more effectively; and
- trends in the types of ED services used and the types of beneficiaries who use them may suggest a lack of availability of ambulatory services elsewhere.

Preventive and primary care services

Use of preventive and primary care services known to be effective is one possible indicator of access to appropriate care.²⁰ Declines in use of these services could signal that the Medicare population may have access problems. In addition, variations in use rates for these services by population subgroup might reveal disparities that do not appear in aggregate measures. For example, an annual influenza vaccination is recommended for all persons 65 years and older. However, in 2000, 70 percent of all white beneficiaries, 52 percent of African Americans, and 54 percent of Hispanics received flu shots (MCBS Access to care file 2000). Thus, significant portions of the elderly population are not receiving a service that could prevent one of the six leading causes of death among the elderly, and minorities seem to have the biggest gap between the amounts of recommended and received preventive services.

The Medicare population is also underusing preventive services for diabetes and other chronic conditions. One tool MedPAC has employed to monitor use of appropriate services is the

Access to Care for the Elderly Project (ACE–PRO) indicators.²¹ MedPAC analysis of 1996–1999 MCBS Cost and Use files using these indicators revealed that only 46 percent of beneficiaries with diabetes received an eye exam at least once a year and only 41 percent received a test to measure glucose levels every six months. Although the number of beneficiaries obtaining these preventive tests has increased since that analysis, a significant number still do not receive the appropriate tests.²² Diabetic beneficiaries with no supplemental coverage were even less likely to receive appropriate preventive services (Table 3-5).

Preventable hospitalizations

Some of the ACE–PRO indicators use measures of preventable hospitalizations to identify those beneficiaries who may not have received the right service. These measures are based on the premise that patients go to the emergency department or are admitted or readmitted to the hospital for some conditions, such as asthma, if they have not received appropriate primary care. Researchers have identified a number of conditions sensitive to ambulatory care, including congestive heart failure, pneumonia, asthma, diabetes, gastroenteritis, and dehydration (Rutstein et al. 1976, Billings et al. 1993, Epstein 2001). Table 3-5 contains two of these examples, including the percentage of Medicare beneficiaries with known angina who went to the ED three or more times in one year for cardiovascular-related diagnoses.

We know of no national or Medicare-specific benchmark that describes the right level of hospitalizations for these

20 A low or decreasing utilization rate for these services could be due to access barriers like the availability of providers or willingness to obtain care, or could indicate a problem with the quality of care—that is, the beneficiary did go to the physician, but did not receive the right test or vaccine. Therefore, it is important to use these indicators cautiously when making conclusions about access to care. Whether the problem is an access or quality concern, the level of coverage or payment for the service is an important concern.

21 The ACE–PRO indicators were developed by RAND for the Physician Payment Review Commission. The indicators use Medicare claims and enrollment data to identify whether patients with certain conditions have received the minimally necessary services (as defined by clinicians).

22 Data from the CMS quality improvement organization program show that the rates of provision of tests to measure glucose levels in a one-year period for the median state in 2000–2001 was 78 percent; 70 percent of the diabetics received an eye exam within a two-year period (Jencks SF, Huff EO, Cuedon T 2003). One of the primary reasons for this difference in rates between the ACE–PRO and the CMS data is that the time frames differ. The CMS data reported on rates of provision across a one-year period for glucose testing and the ACE–PROs used a six-month period. For eye exams, CMS used a two-year period while the ACE–PROs were based on a one-year period.

**TABLE
3-5**

Share of beneficiaries using selected clinically necessary services, by supplemental coverage

Indicators	Total	No supplemental coverage	Some supplemental coverage
Use of necessary care for specific conditions			
Eye exam every year for patients with diabetes	46.0%	29.9%	47.1%
Glycosylated hemoglobin or fructosamine test every six months for patients with diabetes	41.3	36.3	41.7
Follow-up visit within four weeks of initial diagnosis of gastrointestinal bleeding	72.2	54.0	73.3
Arthroplasty or internal fixation of hip during hospital stay for hip fracture	88.9	80.0	89.7
Incidence of avoidable outcomes			
Among patients with known diabetes: admissions for hyperosmolar or ketotic coma	0.1	0.6	0.1
Among patients with known angina: three or more emergency room visits for cardiovascular-related diagnoses in one year	5.2	6.0	5.2

Source: MedPAC analysis of the 1996–1999 Medicare Current Beneficiary Survey Cost and Use files using the Access to Care for the Elderly Project Indicators.

conditions. However, some studies in the Veterans Health Administration system and specific geographic regions have used clinical protocols and medical record reviews to establish rates of preventable hospitalizations for a variety of conditions.

In 1997, a study authored by researchers from NCHS reported that in 1990 almost half of all potentially avoidable hospitalizations were for those aged 65 and over (Pappas et al. 1997). For persons over 65, 15 percent of adjusted total discharges were for potentially avoidable hospitalizations. The rate of potentially avoidable hospitalizations for persons in this study aged 45 to 64 was 10 percent of

adjusted total discharges. Most of these hospitalizations for those over 65 were for congestive heart failure (40 percent) and pneumonia (35 percent).

MedPAC analysis of unpublished national estimates for 1999 from the Healthcare Cost and Utilization Project of the Agency for Healthcare Research and Quality (AHRQ) shows that of the total potentially avoidable hospitalizations for conditions identified by AHRQ as “prevention quality indicators,” five conditions accounted for 88 percent of all of the potentially avoidable hospitalizations for those over 65. Those conditions were: congestive heart failure (30 percent), bacterial pneumonia (25

percent), chronic obstructive pulmonary disease (16 percent), urinary tract infections (9 percent), and dehydration (8 percent).

Emergency department use

Medicare beneficiaries use EDs more often than people under 65 who are not eligible for Medicare, with the oldest beneficiaries and minorities using them more than other beneficiaries. This care appears to be appropriate on one level; the proportion of visits assessed as “nonurgent” at the time of admission among the elderly is quite low.²³ However, this use of EDs may also indicate that these beneficiaries are not getting appropriate care elsewhere that might have prevented the need for an ED visit. NCHS analysis of patient characteristics that act as barriers to obtaining care show that high users of EDs are more likely to report no usual doctor and no usual source of care. Because much of the increase in the use of EDs by older Americans in the 1990s was to treat illness or complications of medical treatment, including problems with medications, older Americans may not be using a regular source of care to continually monitor and manage their health conditions.

Emergency care is essential when people become critically ill and becomes increasingly important as people age. Slightly more than 20 percent of all adults over the age of 18 in the United States had one or more ED visit in 2000 (NCHS 2002). However, more than 25 percent of people age 75 and older had at least one ED visit in 2000 and people 75 and older were almost twice as likely as those age 55 to 64 to have two or more visits to the ED. Data collected by NCHS in the National Hospital Ambulatory Medical Care Survey (NHAMCS)²⁴ have explored

23 Data from the 2000 NHAMCS show that, for those visits for which the immediacy of care need was known, the proportion of visits that were “nonurgent” decreases with age: For people age 75 and older, 5.3 percent of visits were nonurgent, compared with 5.8 percent for visits by those age 65 to 74, and 9.0 percent for people age 45 to 64 (McCaig and Ly 2002). Nonurgent is defined in the survey as “a visit in which the patient should be seen within 121 minutes to 24 hours.” This definition is stricter—care needed within two hours or less—than the standard used by some health systems for their urgent care protocols.

24 This survey has been conducted annually by NCHS since 1992. This survey obtains detailed data on all ED and outpatient visits, for all patients, provided in non-Federal, short-stay hospitals providing general (medical or surgical) care (Burt and McCaig 2001). This makes it a particularly valuable source for comparing the use of EDs across all populations, and over time. Because the survey is based on visits, rather than people, however, the rates cannot fully explain variations in the use of ED services. Each visit is an independent observation, and visits by a particular individual cannot be linked.

the use of ED services in depth (Burt and McCaig 2001; McCaig and Ly 2002).²⁵ Several issues related to access to care emerge from the analysis of these data.

- **Beneficiaries used the ED for urgent care.** Beneficiaries tend to use ED care for care related to existing medical conditions that have reached the stage where urgent care is necessary. The illness-related visit rates, as compared with visits for injuries, for persons over 65 as a whole increased by 21 percent between 1992 and 1999. It appears that these ED users were under some type of medical treatment and were taking an increasing number of prescription drugs. During this period, the rate of visits caused by adverse effects from medical treatment increased from 4.8 to 10.2 visits per 1,000 persons per year and the rate of visits in which 5 or more prescription drugs were mentioned in the visit record increased by 59 percent.
- **ED use varies with beneficiaries' characteristics.** African Americans and beneficiaries with Medicaid coverage (a poorer population) use EDs to a greater extent than other Medicare populations. MedPAC analysis of several years of MCBS data also show that the oldest beneficiaries, those with end-stage renal disease, disabled beneficiaries, and those using some type of nursing facility care were also heavier users of EDs.

These data cannot provide the level of information required to evaluate how care management could mediate beneficiaries' need for emergency services. It is very

difficult to distinguish between use of services that is necessary and appropriate and use of services that may be necessary but could have been avoided with appropriate primary care or better management of complex medical conditions. However, lack of access to appropriate care management for vulnerable populations may contribute to acute episodes that require visits to the ED.²⁶

Conclusion

Our analysis finds no widespread problems in beneficiaries' access to care. On some important measures, beneficiaries enjoy better access to services than is the case for older adults not yet eligible for Medicare. There are, however, some areas of concern regarding the availability of appropriate, effective services for a growing beneficiary population that the Commission will monitor closely. First, recent research suggests that some physicians in Medicare's fee-for-service program are becoming more selective about the patients they accept into their practices. This selectivity does not appear to be targeted exclusively to Medicare beneficiaries, but trends in physician participation in Medicare and in beneficiaries' ability see physicians on a timely basis are important indicators to track. Second, there is some evidence that patients with particularly complex care needs may have problems gaining access to appropriate post-acute care services. It will be important to monitor the effect that

delayed placement in skilled nursing care may have on patients with more complex needs.

Advances in medical technology and improvements in the management of complex health care problems may change the landscape of the health care services people use. If current trends persist, however, the beneficiary population will not only be larger, but it will also include a growing number of disabled beneficiaries, people over age 85, more minorities, and more women living alone. These beneficiary groups are currently among the most vulnerable, in terms of prevalence of serious chronic conditions, low incomes, and adequate supplemental insurance. MedPAC analysis also shows that they are more likely than other beneficiaries to report problems across measures of access to care. MedPAC will continue to monitor these and other Medicare beneficiaries' access to care issues to evaluate whether the health care system is responding to their health care needs.

Finally, closer examination of data on the use of health services across populations suggests the importance of focusing not only on access to care, but on access to the right kind of care, in the right setting. The evidence suggests a need to evaluate whether better access to appropriate preventive and primary care, as well as better management of complex chronic illnesses, might help prevent or delay serious complications, including the need for emergency services and subsequent inpatient care. ■

25 The 2001 NCHS report on ED trends examined data from the NHAMCS from 1992 to 1999 and also drew on NHIS and Medicare data to explore some of the trends identified in the analysis of ED service use (Burt and McCaig 2001). Unless noted otherwise, NCHS analysis of ED use rates discussed here is drawn from Burt and McCaig, 2001.

26 Recent research points to ways that care managed outside the ED can prevent the need for ED visits. See, for example, Coleman EA, Eilersten TB, Kramer AM et al. Reducing emergency visits in older adults with chronic illness, *Effective Clinical Practice*. March–April 2001, Vol. 4, No. 2, p. 49–57.

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