In recent years, clinicians, academics, and policy makers have begun to examine the potential benefits of services to promote health or to prevent disease, disability, or death in the elderly. Although Medicare, the Federal program responsible for paying the bulk of the noninstitutionalized elderly's health care bills, currently pays for few preventive services, Congress has several proposals pending to expand Medicare coverage of these procedures. In this paper, OTA examines the implications of potential Medicare coverage for the use of preventive services by analyzing current use and the determinants of that use.

How Many Elderly Use Preventive Services?

OTA found few sources that measure the use of preventive services by the elderly. The data that are available (summarized in table 3 in the text of the paper) suggest two main conclusions:

- The use of preventive services by the elderly varies according to the type of service from a low of 20 to 30 percent for routine fecal occult blood testing in some sites to a high of 93 percent for blood pressure measurement. These differences cannot be explained by differences in the periods of time over which use is measured.
- Rates of use of specific services show a high level of consistency across studies, despite differences in methods.

Trends in available data suggest that the use of these procedures has increased over the last 15 years. Data also indicate that if an elderly person receives any preventive services, he or she is likely to receive multiple services.

Which Elderly Use Preventive Services?

Studies to isolate factors associated with the use of preventive services fall into two categories:

- those that focus on the behavior of patients, and
- those that focus on the behavior of health care providers and organizations.

Most of the studies in both of these categories examine preventive service use among the nonelderly. An analysis of data for the over-65 population in the 1982 National Health Interview Survey (NHIS) found that, controlling for other factors, the probability that an elderly person used each of five selected preventive services--glaucoma screening, eye exams, blood pressure measurement, breast exares, and Pap smears--was consistently related to:

- being male (for the three services available for both men and women),
- being younger (although still over-65),
- having more education,
- having greater family income,
- having some health insurance in addition to Medicare,
- living in a metropolitan area, and
- having spent more days in bed during the previous year.

OTA found that receiving health care through a prepaid health plan was not related to the use of any preventive service. However, so few people in the study sample belonged to prepaid plans that it may not have been possible to find a statistically significant effect. Race, living alone, and having some limitation in activity had no clear or consistent effect on the use of the five services studied.

Other studies of the relationship between patient characteristics and the use of preventive services have had similar findings.

Among health care providers, physicians play a key role in the provision of preventive services. The evidence suggests that gaps exist between physicians' knowledge and experts' recommendations on the use of preventive services as well as between physicians' knowledge or beliefs and actual practice. These gaps may be more prominent in relation to elderly patients. While they may suggest a shortcoming in physicians' performance, they could also indicate that physicians take individual patients' situations into account when ordering preventive services.

Other insights into the importance of health care providers in determining whether the elderly receive preventive services come from trials designed to improve compliance with expert recommendations. These studies indicate that health care organizations can organize themselves to affect the percentage of individuals receiving such services. Strategies suggested in the literature worthy of further study include:

- targeting groups in need of prevention,
- using non-physician medical professionals to deliver services, and
- generating reminders to physicians and patients about the periodic need for preventive services (especially with the aid of computerized record-keeping systems).

Although OTA's analysis of preventive service use showed that health maintenance organizations (HMOs) had no discernible effect on elderly enrollees' preventive activities, the review of the literature on provider behavior indicates that HMOs and other group practices with centralized administration and record-keeping may have potential for increasing the use of such services.

Implications of Medicare Coverage for the Use of Preventive Services by the Elderly

The findings of this study have three main implications for potential Medicare coverage of preventive services:

- Reducing patients' out-of-pocket expenses for preventive services through Medicare would probably increase the percentage of elderly receiving preventive care. For four of the five services examined in detail by OTA, having some insurance coverage beyond Medicare is associated with about a 10 percent increase in the likelihood of receiving each service.

However, there are three caveats to this finding:

(1) OTA's analysis measured the presence of insurance that reduced patients' total out-of-pocket health care expenditures, not direct coverage of preventive services. The effect of direct coverage on use may be different from the effect observed in OTA's analysis.

(2) The association between insurance and use may not always reflect a direct cause and effect. Rather, some people may be likely both to buy supplemental insurance and use preventive services out of concern for their own health.

(3) OTA's analysis suggests that insurance coverage alone would not be sufficient to induce many elderly to avail themselves of preventive services.

- Medicare coverage of preventive services may indirectly increase the use of preventive services by raising interest in preventive care among non-Medicare health care consumers, providers, and payers. Such coverage would, in effect, place the authority of the Federal Government behind the covered services. OTA found no existing data to estimate the existence or magnitude of this potential effect.
- Because large numbers of elderly people already use preventive services, expansion of Medicare to cover preventive procedures will represent an immediate boost in the program's financial obligations even if increases in use are minimal or nonexistent. While Medicare may already pay for some screening services incorrectly labeled as diagnostic procedures, Medicare coverage would still transfer a large portion of the current costs of preventive services from patients or other payers to the Federal Government.

Other Implications for Policy

Among other factors important in determining whether the elderly receive preventive services, a few such as gender, age, education, income, rural or urban residence, and bed days could be useful in helping policy makers target educational efforts on the need for preventive services to those elderly at highest risk of not complying with expert recommendations. The relationship between use and educational level suggests that policy makers should carefully consider the media they employ to promote preventive service recommendations, benefits, and other programs they undertake. Pamphlets or other materials that rely heavily on the written word are not as effective for the less well-educated who also have a relatively higher risk of not receiving preventive procedures. Policy makers could consider using visual media to communicate their messages to such groups.

Some of the factors important to the elderly's use of preventive services, such as income or educational level, are unlikely to be the focus of policy efforts designed solely to increase the use of preventive services. However, changing these factors for some other purpose might result in increases in use.

The analysis in this paper concentrates on those services most often raised in congressional discussions of prevention under Medicare--screening and immunizations. The conclusions presented above may have limited applicability to consideration of other preventive services such as health risk appraisals, health education, counseling services, or prevention of disability among elderly suffering from chronic disease.