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Hearing and Vision Care for Older Adults:

Sensing a Need to Update Medicare Policy

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When Medicare became law in 1965, Congress made a justifiable decision to exclude items that were "routinely needed and low in cost," reasoning that the cost of such items could be borne by the consumer. On that basis, hearing aids and lens-containing visual aids were excluded from coverage, with narrow exceptions, such as intraocular lenses for cataract surgery. Advocacy groups for people living with sensory impairment have long called for broader coverage of sensory aids. During the past year, the issue has gained new traction from legislative and scientific communities. In December 2013, Representatives Carolyn Maloney (D-NY) and Gus Bilirakis (R-FL) introduced a bill (HR 3749) to initiate a 5-year demonstration project to provide "usable and medically necessary" low-vision devices to Medicare beneficiaries.[1] Earlier this year, the Institute of Medicine and National Research Council convened a workshop on the effect of hearing loss in healthy aging. The summary emphasized the public health implications of age-related hearing loss and pointed to Medicare's noncoverage policy as a significant reason that hearing aids are used by fewer than 1 in 5 older adults who could benefit.[2]

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The prevalence of hearing loss doubles with every age decade, and nearly two-thirds of Americans older than 70 years have a clinically significant hearing impairment.

Given present-day understanding of the health effects of sensory loss and advances in technology, Medicare policy for coverage of hearing and vision rehabilitative services, established a half century ago, may need reconsideration. A key concern in today's economy is whether any extension of Medicare coverage policy is financially realistic. The prevalence of hearing loss doubles with every age decade, and nearly two-thirds of Americans older than 70 years have a clinically significant hearing impairment.[3] Likewise, persons older than 70 years account for about80% of the2.8 million Americans with low vision, defined as vision loss (excluding blindness) not correctable with refraction, medication, or surgery.[4] The burden and prevalence of sensory impairments will continue to increase as the baby boomer generation ages, and such projections are not new.

What has more recently been appreciated are the long-term and public health implications of sensory impairment. Although sensory impairments diminish quality of life for the affected person, converging evidence suggests that vision and hearing loss have additional, cascading consequences for patient's families, caregivers, and society. Sensory impairments increase the risk for costly health outcomes of disability, depression, cognitive impairment, and dementia.[2,5–7] Sensory loss impedes self-care and management of other chronic health conditions and may contribute to the higher rates of hospitalization among sensory-impaired older persons. Loss of independence adversely affects caregivers, leading to collateral third-person disability in social and daily functioning.

Thus, while the costs of extending coverage for sensory rehabilitation need to be carefully considered, equal consideration must be given to the societal and health care costs incurred by not enabling access to assistive devices that may prevent or delay the expensive consequences of sensory impairments. Medicare demonstration projects yield accurate estimates of costs incurred when a benefit is extended, but with some further investment, demonstration projects present an opportunity for comparative effectiveness research. For example, by restricting the expanded coverage policy to residents of particular counties, it is possible to collect and compare outcomes such as health care utilization, disability, and caregiver burden among participants who receive the new benefit and matched individuals who do not. This approach could enable more informed decisions about the cost-benefit tradeoff of revising policy. The lack of high-quality evidence remains an obstacle for other policy decisions regarding sensory impairment: the US Preventive Services Task Force has not issued a recommendation on screening for visual acuity or hearing impairment in older adults, citing "inadequate evidence to assess the balance of benefits and harms."[8]

Technology to improve independence for those with noncorrectable vision and hearing loss has advanced in recent decades. Devices such as video magnifiers with miniature LED cameras provide high-definition, magnified images of almost anything, enabling activities from medication and financial management to personal grooming (costs range from $500–$3500). The devices can be equipped with software to recognize bar codes or read text aloud. Hearing aids have made similar progress with directional microphones, noise

cancellation algorithms, and wireless capabilities that allow seamless integration with consumer electronics such as smartphones. The average cost of obtaining a pair of hearing aids in the United States (range, $3000–$4000)[9] does not reflect the true cost of the device. Generally, a third or less of the cost is for the actual hearing aid, and the remainder covers the time and services of the audiologist to fit the device and provide follow-up care. This system of “bundled” pricing is of uncertain benefit and prevents patients from distinguishing between sources of expense.

The rationale for noncoverage of sensory aids initially hinged on the notion that consumers should pay for common and affordable items, especially those of limited health benefit. Today, the consequences of sensory loss and the benefits of mitigating the associated disability are evident.[2,5] As more sophisticated devices come to market, optimal care for some patients involves a device that is neither routine nor low cost. Yet the Centers for Medicare & Medicaid Services (CMS) has upheld the original policy, excluding newer hearing aids and lens-containing devices from coverage.

The policy approach that excludes coverage of lens-containing devices reached a level of inconsistency in 2014, when CMS created a new Ambulatory Payment Classification (APC 0351) that covers a groundbreaking procedure to implant a miniature telescope in the eyes of patients with age-related macular degeneration.[10] The implantable telescope represents a new treatment model for older adults with severe sensory loss, and the CMS decision makes this potentially life-changing intervention available to qualified patients. However, providing coverage for 1 patient’s approximately $15 000 price tag for a lens-containing device and its surgical implantation begs the question of why another patient is not reimbursed for a $2000 portable video magnifier. Both devices use lenses to benefit particular patients with incurable eye disease. A main difference—apart from cost—is that one device is implanted in the eye, whereas the other is not. Under current policy, an appropriate noninvasive option for vision loss may be financially out of reach, whereas a surgical option is accessible.

A similar coverage paradox exists for hearing-related care. Although coverage is provided for cochlear implants for severe-to-profound hearing loss (approximately $30 000 for device and surgery), older persons with mild-to-moderate hearing loss (>95% of hearing-impaired adults) may have no affordable treatment options. Under current policy, audiologists are reimbursed for diagnostic services, such as hearing tests, but not for therapeutic rehabilitative services. Rehabilitative services would not necessarily entail the provision of expensive hearingaids: many patients benefit from educational counseling and training to use relatively inexpensive (<$100–$200) consumer technologies (eg, sound amplifiers, smartphone-based programs). Future CMS coverage for “unbundled” audiologic services (ie, separate coverage of an audiologist’s time from the cost of a hearing aid) may help improve access to treatment while promoting transparency in how services and technologies are delivered.

Proposed changes in coverage must be balanced with economic prudence. For example, the proposed legislation to evaluate the feasibility of reimbursement for low-vision devices sensibly limits coverage to devices that cost more than $500 (reasoning that lower-cost items

can be purchased out of pocket). Likewise, initial steps to cover hearing rehabilitative services by audiologists, without coverage of hearing aids, would limit added expenditure and may spur competition in industry to develop affordable hearing technologies that could be provided by audiologists.

The US health care system faces numerous challenges to control costs and improve quality, and bold solutions are needed. However, there is an equally pressing need to consider incremental policy decisions that represent simple, relatively inexpensive changes that entail low risk and potentially high population benefit. Human health and functioning depend on the ability of a person to interact with the environment, communicate, and independently meet basic needs, and these are the activities threatened by vision and hearing loss. In 1965, when sensory loss was considered to be an inconvenient but benign consequence of age and available equipment was simple, the decision to preclude coverage was justifiable. Today, effective solutions to rehabilitate disabling sensory impairments have evolved, as has the awareness that sensory loss is more than a “nuisance” condition. Finding ways to encourage older adults to have access to rational care for sensory loss needs to be a CMS priority.

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