Whitson and Lin Page 3

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