

FCC remarks: Cruickshanks

Thank you for inviting me to participate in this exciting discussion. I am an epidemiologist who studies sensory changes in aging through large longitudinal cohort studies supported by the National Institute on Aging. The goals of our research program are to understand the impact of age-related sensory disorders from a public health perspective and to identify modifiable and genetic factors which contribute to the decline in sensory function with age. Hearing impairment is a major focus of our research because communication is such an essential and important part of life for everyone. Studies are showing that the ability to effectively receive and interpret information from others is important for remaining engaged in society, maintaining independence, and for enjoying life as we age. When declining auditory function limits that pathway, alternative or assisted communication options may be important for healthy aging.

To give you a population or public health perspective on the need for communication services, I'd like to share with you some information from our studies in Wisconsin to make three points. First, hearing impairments are common in mid-life and often are mild or moderate in severity. Second, many people with mild or moderate hearing impairments struggle with telephone communication. Lastly, as you plan for the future, the hearing-impaired public appears to be receptive to using technology providing an opportunity to use innovative approaches and new technologies to improve communication for aging adults.

In the first slide, the prevalence of hearing impairment by age in two cohort studies is shown on the left. The EHLS or Epidemiology of Hearing Loss Study is a population-based cohort study of older adults in Beaver Dam, WI. The BOSS or Beaver Dam Offspring Study follows the adult children of the EHLS participants; the children were ages 21-84 and may live anywhere in the world although most reside in WI. Hearing was tested by pure tone audiometry and hearing impairment was defined as an elevated average threshold in the speech frequencies. As you can see, hearing impairments are common, affecting about 1 in 6 at age 50-59 and 1 in 2 by age 70-79. The BOSS participants represent baby boomers and Generation X while the EHLS cohort represents the Greatest and the Silent generations. As the baby boomers age, and continue to develop hearing impairments, there will be very large numbers of adults living many years with hearing impairments.

As part of our questionnaires we asked people: Do you have difficulty understanding the conversation when talking on the telephone? The right hand graph shows you the percent of the hearing-impaired people who reported telephone communication difficulties by age; people with normal hearing were excluded. More than one third of the people with mild or moderate hearing impairments reported having problems using the telephone.

The last slide shows use of cell phones (left) and home computer use (right) by age group in the BOSS cohort. Today's middle-aged adults and therefore, the future's elderly, are frequent users of technology and may be receptive to new approaches to effectively communicate as they experience age-related changes in hearing.

I look forward to today's discussion and congratulate the FCC and the NIA on forming this partnership to make evidence-based decisions on methods to provide communication services.