

*Hearing Impairment and Elderly People*

May 1986

NTIS order #PB86-218559

**Hearing Impairment  
and Elderly People**

**Background Paper**



CONGRESS OF THE UNITED STATES  
Office of Technology Assessment  
PUBLISHED BY THE NATIONAL TECHNICAL INFORMATION SERVICE

Recommended Citation:

U.S. Congress, Office of Technology Assessment, *Hearing Impairment and Elderly People—A* Background Paper, OTA-BP-BA-30 (Washington, DC: U.S. Government Printing Office, May 1986).

Library of Congress Catalog Card Number 86-600511

For sale by the Superintendent of Documents  
US. Government Printing Office, Washington, DC 20402

# Preface

Hearing impairment is very common among elderly people and can seriously affect their quality of life, personal safety, and ability to function independently. This OTA background paper discusses the prevalence of hearing impairment and its impact on elderly people; hearing devices and services that may benefit them; and problems in the service delivery system that limit access to these devices and services.

This background paper is part of the OTA assessment of *Technology and Aging in America* that was requested by the Senate Special Committee on Aging and the House Select Committee on Aging, and endorsed by the House Committee on Education and Labor. For that assessment OTA selected five chronic conditions for in-depth analysis because of their prevalence and severe impact on elderly people and because of the potential role of technology in their treatment. Hearing impairment is one of these conditions; the others are dementia, urinary incontinence, osteoarthritis, and osteoporosis.

Many of the chronic conditions that affect elderly people, including the types of hearing impairment that are most common, cannot be cured with available medical and surgical treatments. As a result, some elderly people, their families, and others assume that these conditions are not treatable. Yet assistive technologies can often help to maintain functioning even when the underlying disease or condition cannot be cured. In the case of hearing impairment, these technologies include hearing aids, infrared and FM assistive listening devices, telephone amplification devices and other telecommunication systems, signaling and alarm devices, and environmental design and aural rehabilitation techniques. Used singly or in combination, these technologies can facilitate communication and help to maintain an independent lifestyle for many hearing impaired people.

As more and more Americans live to older ages, the prevalence of chronic conditions that cause functional impairment is expected to increase. Along with biomedical research on the causes and possible cures for these conditions, the development and increased use of technologies that compensate for functional impairment are among the most hopeful approaches to improving the quality of life of elderly people.

OTA was assisted in the preparation of this background paper by many outside advisors and reviewers, including biomedical and social science researchers, physicians, audiologists, and representatives of the hearing aid dealers and hearing aid manufacturers associations. We express sincere appreciation to each of these individuals and organizations. As with all OTA reports, the content of this background paper is the responsibility of the Office and does not necessarily represent the views of outside advisors or reviewers.

# Technology and Aging in America Advisory Panel\*

Robert Binstock, *Panel Chair*

Director, Policy Center for Aging, Brandeis University

Raymond Bartus  
Group Leader of Geriatrics  
Medical Research Division  
Lederle Laboratories

Robert Berliner  
Dean  
School of Medicine  
Yale University

Robert N. Butler  
Chairman  
Department of Geriatrics and Adult Education  
Mt. Sinai Medical Center

Robert Clark  
Associate Professor  
Department of Economics and Business  
North Carolina State University

Lee L. Davenport  
Senior Vice President—Chief Scientist,  
emeritus  
GTE Corp.

Ken Dychtwald  
president  
Dychtwald & Associates

Caleb Finch  
Professor of Biological Sciences and  
Gerontology  
University of Southern California

Velma Murphy Hill  
Director  
Civil and Human Rights Division  
Service Employees International Union

Robert L. Kane  
Senior Researcher  
The Rand Corp.

Paul A. Kerschner  
Associate Director for Programs,  
Legislation and Development  
American Association of Retired Persons

Maggie Kuhn  
Founder and National Convener  
The Gray Panthers

Matt Lind  
Vice President  
Corporate Planning and Research  
The Travelers Insurance Co.

Robert G. Lynch  
Vice President  
Marketing Planning  
GTE Corp.

Mathy D. Mezey  
Director  
Teaching Nursing Home Program  
University of Pennsylvania

Hamish Munro  
Professor of Medicine and Nutrition  
Tufts University

Bernice Neugarten  
Professor of Education and Sociology  
Northwestern University

Sara Rix  
Director of Research  
The Women's Research and Education  
Institute

Pauline Robinson  
Research Professor of Gerontology  
University of Southern California

John W. Rowe  
Chief of Geriatrics  
Beth Israel Hospital

Bert Seidman  
Director  
Department of Occupational Safety, Health  
and Social Security  
AFL-CIO

Jacob Siegel  
Senior Researcher  
Center for Population Research  
Georgetown University

● Panel members' affiliations are listed at the time the assessment began.

NOTE: OTA appreciates and is grateful for the valuable assistance and thoughtful critiques provided by the advisory panel members. The views expressed in this OTA report, however, are the sole responsibility of the Office of "technology Assessment.

# OTA Project Staff—Hearing Impairment and Elderly People

Roger C. Herdman, *Assistant Director, OTA  
Health and Life Sciences Division*

Gretchen S. Kolsrud, *Biological Applications Program Manager*

Robert A Harootyan, *Project Director*

David McCallum, \* *Project Director*

Claire W. Maklan, *Analyst*

Katie Maslow, *Analyst*

Chris Elfring, *Editor*

## **Support Staff**

Sharon Smith, *Administrative Assistant*

Linda Ray ford, *Secretary, Word Processing Specialist*

Barbara Ketchum, *Clerical Assistant*

## **Related Products**

*Technology and Aging in America*, OTA Assessment

*Impacts of Neuroscience*, OTA Background Paper

*Technologies for Managing Urinary Incontinence*, OTA Case Study

## Acknowledgments

This project has benefited from the advice of many experts in the field of hearing impairment and hearing services. OTA especially would like to thank the following advisors, reviewers, and contractors for their assistance and support.

Gay Becker  
Aging Health Policy Center  
University of California  
San Francisco, CA

Derald Brackmann  
Otologic Medical Group  
Los Angeles, CA

Scott C. Brown  
Gallaudet Research Institute  
Washington, DC

Anthony DiRocco  
National Hearing Aid Society  
Livonia, MI

Dennis Dreschler  
Wayne State University  
Detroit, MI

George W. Fellendorf  
Fellendorf Associates  
Washington, DC

Raymond M. Fleetwood  
Harry Diamond Laboratory  
Adelphi, MD

Richard M. Flower  
Department of Otolaryngology  
Division of Audiology and Speech  
University of California  
San Francisco, CA

Laurel E. Glass  
Center of Deafness: Research, Training, and  
Mental Health Services  
University of California  
San Francisco, CA

Jerome C. Goldstein  
American Academy of Otolaryngology-Head  
and Neck Surgery  
Washington, DC

Sandra Gordon-Salant  
Hearing and Speech Sciences Department  
University of Maryland  
College Park, MD

Elise Hall  
Montgomery County Department of Housing  
and Community Development  
Rockville, MD

Annette G. van Hilst  
Montgomery County Department of Housing  
and Community Development  
Rockville, MD

Leonard Jakubczak  
National Institute on Aging  
Bethesda, MD

Sam Kinney  
The Cleveland Clinic  
Cleveland, OH

Barry Leshowitz  
Department of Psychology  
Arizona State University  
Tempe, AZ

Thomas J. Maronick  
Federal Trade Commission  
Washington, DC

Ralph F. Naunton  
Communicative Disorders Program  
National Institute of Neurological and  
Communicative Disorders and Stroke  
Bethesda, MD

Robert J. Newcomer  
Aging Health Policy Center  
University of California  
San Francisco, CA

Suzanne M. Pathy  
The Suzanne Pathy Speak-Up Institute  
New York, NY

Carol M. Rodin  
Hearing Industries Association  
Washington, DC

David Saks  
Organization for the Use of the Telephone  
Owings Mills, MD

Virginia W. Stern  
Project on the Handicapped in Science  
American Association for the Advancement of  
Science  
Washington, DC

Rocky Stone  
Self Help for Hard of Hearing People  
Bethesda, MD

Jerry Tobias  
Auditory Department  
Naval Submarine Medical Research Laboratory  
Groton, CT

Gwenyth R. Vaughn  
Audiology-Speech Pathology Service  
Birmingham Veterans Administration Medical  
Center  
Birmingham, AL

Timothy J. Waters  
McDermott, Will, and Emery  
Washington, DC

Barbara Williams  
Office of Cued Speech Programs  
Gallaudet College  
Washington, DC

Peggy Williams  
American Speech-Language-Hearing Assoc.  
Rockville, MD

Howard Zubick  
Brigham and Womens Hospital  
Boston, MA