Guide for establishing a Hearing Assistance Program in your community

Based on the Hear Ye, Hear Me Project
Helping older Minnesotans with hearing loss stay connected.
The *Hear Ye, Hear Me* project and this guide were supported in part by funding by a Community Services and Community Services Development (CS/SD) grant from the Minnesota Department of Human Services (DHS). Points of view or opinions expressed in this document do not necessarily represent official DHS policy.
Hear Ye, Hear Me

Helping older Minnesotans with hearing loss stay connected.

Guide for establishing a Hearing Assistance Program in your community

Macalester-Groveland Seniors
West 7th Senior Services
Highland Living at Home/Block Nurse Program
Summit Hill Living at Home/Block Nurse Program
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December 2011, St. Paul, Minnesota
The *Hear Ye, Hear Me* project was the result of a perfect storm of events. In 2009, a Living at Home Network program director in St. Paul, MN suffered a temporary hearing loss due to a medical condition and realized first-hand how devastating hearing loss could be. Around that time, she learned of a one-day workshop on hearing loss sponsored by the Minnesota Department of Human Services-Deaf and Hard of Hearing Services Division (DHS-DHHS). Why not attend and see how this would help our clients?

Even though she was trained as a nurse, the program director gained new information about hearing loss and wanted to pass it forward. She mentioned the great training she had received to another Living at Home Network director, who coincidentally had been thinking about doing something on hearing loss for her program.

This made sense because Living at Home Network professionals conduct in-depth home visits to assess for needed services, and determine how to tailor these services to individual needs. They serve an average 2,000 individuals per year, and it is estimated that 50% of their nursing/care-managed clients have either a mild or severe hearing impairment.

Opportunity meets need. In 2009 four St. Paul Living at Home programs came together with hearing loss experts to form a program partnership. Funding was secured through Community Services and Community Services Development (CS/SD) grant of the Minnesota Department of Human Services (DHS).

This guide shares what was done and what was learned from this project, with the hope it can assist other community organizations in reaching out to seniors with hearing loss.
Hear Ye, Hear Me
*Helping older Minnesotans with hearing loss stay connected.*

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Project Partners

Living at Home Network Programs

Kathleen Arnesen is Executive Director of Macalester-Groveland Seniors. Founded in 1987, the program developed as a grassroots effort by area residents and community leaders to meet the changing needs of seniors in the community. Direct home health care services are provided to elders’ age 65+, many of whom are low income and have limited access to affordable services. Volunteers provide friendly visits, transportation to doctor’s appointments or help with shopping. Services are geared toward a successful transition to maximum self-sufficiency, using area services and resources. Kathleen has been with the program since 1992.

Maureen Davidson is Director of West Seventh Senior Services. The services began 38 years ago as a Meals on Wheels program. It now provides a comprehensive menu of support for the West 7th Street neighborhood in St. Paul. The mission is to assist seniors who want to “age in place” and stay active in community life. Direct services provided include in-home needs assessments, activities program, information/referral, care management, Living at Home/Block Nurse services, homemaker services and respite care. There are weekly seminars on health and financial topics and numerous social and recreational offerings to help seniors stay connected to the community and access helpful information. Maureen has been with the program since 1992.

Paula Fischer is Director of the Highland Block Nurse Program. Founded in 1987, the program goal is to assist elders in remaining in their homes through a wide variety of services with special emphasis on in-home nursing/home health aide care, caregiver support/respite and volunteer services. Blood pressure clinics and in-home foot care are also provided as well as linking elders with cultural and social activities. Paula has been with the program since 1992. Note: The three neighborhood programs listed above all receive a variety of public and private funding to provide affordable services.

Julie Poupore, former director of the Summit Hill Living at Home/Block Nurse program, also contributed to this project.

University of Minnesota-Twin Cities

Department Of Speech-Language-Hearing Sciences

Mark DeRuiter is Director of Graduate Studies and Clinical Programs in the Department of Speech-Language-Hearing Sciences at the University of Minnesota–Twin Cities. He is dually certified in audiology and speech-language pathology, and is involved in professional activities at both the state and national levels.

Minnesota Department of Human Services

Deaf and Hard of Hearing Services (DHHS)

Mary Bauer is with DHHS. She provides consultation, information & referral, technical assistance, and training to individuals who are deaf or hard of hearing, their families, and public and private agencies regarding issues related to hearing loss. She shares her experiences as a hard-of-hearing person during her presentations so people can better understand what it is like to have a hearing loss. She has a degree in elementary education and deaf education and has worked with deaf and hard of hearing persons and their families since 1980.
Introduction

What is the impact of hearing loss?

Hearing loss usually develops slowly, often worsens with age, and is generally permanent. It is typical for individuals with a mild to moderate hearing loss to be unaware of their problem, even though family and friends are quite aware of it. According to the Hearing Loss Association of America, hearing loss is the most common sensory impairment for those age 65 and over, with 30-40% of that population affected to some degree.

Hearing loss is invisible and almost always painless. There are no physical warning signs, except in some cases there may be ringing in the ear(s). But the real reason hearing loss “sneaks” up on a person is that the change is so gradual.

Most hearing losses develop over a period of 25 to 30 years. By age 50 or 60, there can be enough deterioration to interfere with conversations. But hearing loss can occur at any age due to factors such as noise exposure, trauma, genetics, illness, and certain medications.

People with a hearing loss who don’t use hearing aids are more likely to feel sad or anxious, be less socially active and feel greater emotional insecurity than those who do use hearing aids. In some cases, untreated hearing loss can be misdiagnosed as dementia.

Untreated hearing loss can lead to withdrawal, isolation, heightened stress, fatigue, strained relationships, insecurity, emotional disorders and misdiagnosed emotional or physical disorders. Symptoms of hearing loss are similar to those presented with Alzheimer’s disease, so it is easy to confuse the two, resulting in misdiagnosis and failure to treat. (National Council for Better Hearing Study, 2000)

SYMPTOMATIC SIMILARITIES OF ALZHEIMER’S DISEASE AND UNTREATED HEARING LOSS

<table>
<thead>
<tr>
<th>Alzheimer’s Disease</th>
<th>Untreated Hearing Loss</th>
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<tr>
<td>Depression, anxiety, disorientation</td>
<td>Depression, anxiety, feelings of isolation</td>
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<td>Reduced language comprehension</td>
<td>Reduced communication ability</td>
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<td>Impaired memory (esp. short-term memory)</td>
<td>Reduced cognitive input</td>
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<td>Inappropriate psychosocial responses</td>
<td>Inappropriate psychosocial responses</td>
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<td>Loss of ability to recognize (agnosia)</td>
<td>Reduced mental scores</td>
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<tr>
<td>Denial, defensiveness, negativity</td>
<td>Denial, heightened defensiveness, negativity</td>
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<tr>
<td>Distrust and suspicion regarding other’s motives</td>
<td>Distrust and paranoia (e.g., belief that other may be talking about them)</td>
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NATIONAL COUNCIL FOR BETTER HEARING

Project design

As program directors of four Living At Home/Block Nurse Programs who work closely with older adults, we have seen first-hand the isolation and frustration brought on by the losses of aging, especially those that limit communication with others. The Hear Ye, Hear Me project sought to overcome the barriers and denial so often associated with hearing loss and to improve the quality of life for families affected by hearing loss.

The project design focused on older adults who are experiencing hearing loss and their family members and caregivers. It involved reaching older adults in community-based settings (such as community centers) and through existing services such as home visits. Program options included direct service (screenings, home modifications), advocacy (access to assistive technology), education, and peer support. In addition, the project design included public awareness and outreach to community businesses and organizations.

It’s important to remember what works in a single community may not work for all. This guide presents the “nuggets of truth” discovered in our community. Resistance to dealing with hearing loss is strong. Hopefully, community-based efforts such as this project will encourage more older adults with hearing losses to take steps to stay engaged and connected — including all those baby boomers who listened to “too much loud music” for so many years!

How to use this guide

This guide is designed to assist you in developing a hearing loss program in your community, based on a model designed for four neighborhoods in St. Paul. The guide describes the project’s six objectives—Public Awareness, Hearing Screenings, Home Modifications, Education, Community Outreach, and Peer Support — and provides highlights of what we did, steps you might consider and lessons learned along the way.

For more information on how to bring this program to your community, contact Maureen Davidson at 651.698.5493 or email maureend@west7th.org.

“Older adults with hearing loss will usually fail a hearing screening. However, when they are questioned, ‘How did the screening go?’ they will typically say, ‘Just fine.’ There continues to be a challenge of accepting hearing loss for what it is and accepting it as a loss of communication.”

—Dr. Mark DeRuiter, University of Minnesota
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<th>STEPS</th>
<th>WHAT WE DID</th>
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<tr>
<td>1) Assess community needs/resources available to seniors with hearing loss and their families and identify gaps in services.</td>
<td>Through initial discussions among the four Living at Home program directors, it was recognized that local, community-based programming on hearing loss was not available in the neighborhoods served by the Living at Home programs.</td>
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| 2) Based on identified needs, set goals for a hearing loss assistance program. | Three goals were established to achieve the *Hear Ye Hear Me* project’s overall mission — to develop hearing-friendly communities that help elders stay connected and help them make the transition to the use of assistive technology and community-based long-term care services.  
1. Our primary goal was to reach and improve the lives of older adults and caregivers by providing or arranging any and all services needed to help seniors dealing with hearing loss.  
2. Secondly, we wanted to alter the attitude toward accepting assistive technology through advocacy and bridging the informal and formal systems to truly benefit the consumer.  
3. Thirdly, we wanted to pass on the knowledge gained to other service providers, thereby reaching more older adults and providing a more comprehensive service to them. |
| 3) Determine objectives and scope of the program. | The scope of the *Hear Ye Hear Me* project was built around six main objectives, listed and described in more detail in this manual.  
**Objective #1** - Public Awareness: Develop and distribute promotional materials aimed at changing public attitudes about hearing loss and addressing the stigma associated with using assistive listening technology.  
**Objective #2** - Hearing Screenings: Make hearing screenings and otoscopic checks easily available to older adults.  
**Objective #3** - Home modification: Provide older adults, along with caregivers and family members, an easy way to assess the home environment for problem areas, and offer individualized community-based advocacy to help them stay connected to others and to access community-based long-term care services.  
**Objective #4** – Education: Educate older adults on new technologies available and how to access them, and educate volunteers, family members and care providers on techniques for improving communication, emphasizing their shared responsibility.  
**Objective #5** - Community Outreach: Develop hearing-friendly communities.  
**Objective #6** – Peer Support: Facilitate small groups of families/friends, including those with hearing loss and those who are close to them, to improve communication. |
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<td>4) Identify partners, including local hearing loss specialists.</td>
<td>The project originated with four Living at Home/Block Nurse Programs in the southwest quadrant of St. Paul — Highland Park, Macalester Groveland, Summit Hill and West 7th. Each of these programs works directly with seniors in their homes and knows the challenges faced by clients with hearing loss. The University of Minnesota Speech-Language-Hearing Sciences Department was invited to be a partner to provide technical expertise. The University of Minnesota audiology department had previously participated in one of the Living at Home health fair hearing screenings. In addition, Deaf and Hard of Hearing Services (DHHS) was sought as a partner for expertise on living and coping with hearing loss.</td>
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| 5) Assign duties/roles for each partner. | The success of this project depended on the roles and duties assigned to each of the partners:  
  - Role of project manager was assumed by a Living at Home program director who was responsible for overall project coordination and management. This individual was supported by a project assistant who handled a number of duties, including setting up educational seminars, ordering equipment and supplies, coordinating printing of project materials, and organizing a hearing loss display for one program’s health fair.  
  - The duties of the four Living at Home program directors included development of the community awareness materials, training of staff to conduct home modification assessments, coordinating with the audiologist and hearing loss specialist, recruiting trainers for the educational sessions, and developing the replication guide.  
  - The University of Minnesota audiologist served as a consultant on technical matters and developed and conducted the volunteer speaker training for the *Demystifying Hearing Loss* community educational presentation. He also arranged for staff and students to conduct hearing screening in the four neighborhoods and to present the *Clear Speak* educational sessions.  
  - The DHHS hearing loss specialist served as a consultant on community awareness and education aspects of the project. She conducted *Demystifying Hearing Loss* community educational sessions in the four neighborhoods, served as a resource at health fairs, developed and co-led volunteer speaker trainings, and advised on development of the peer model for hearing loss individuals and their caregivers. |
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| 6) Set budget and secure funding. | Each year the Minnesota Department of Human Services gives community services grants that require a 100% match by the recipients. The partners applied for and received a grant of $82,795. This amount was matched by funds from the United Way, the Stevens Square Foundation and Ramsey County. In addition, the project used in-kind matches of office space, secretarial assistance, volunteer time, phone, utilities, etc. Project funds were used to cover the following:  
  - Staff time – four Living at Home Block Nurse program directors  
  - Administrative assistant  
  - Project assistant  
  - Audiologist time  
  - Desktop publisher/web formatter for replication guide  
  - Equipment for volunteer training -- computer/projector and four amplification units  
  - Education materials/outreach materials/printing  
  - Office supplies  
  A large part of this budget was for the project start-up, which would not be required in any replication. Materials and equipment are available for rental from the project partners. |
| 7) Establish a schedule or timeline. | A two-year project work plan was developed:  
**YEAR ONE**  
- Develop community awareness materials. Distribute materials to community centers, hospitals, clinics, other block nurse programs and libraries.  
- Order equipment: laptop computer, projector, speakers, otoscopes, pocket talkers, etc.  
- Develop hearing screening protocol and conduct screenings.  
- Meet with home care agency for training nurses on otoscope procedure. Train nurses on otoscope use and protocol.  
- Develop curriculum on the educational sessions to train volunteer speakers. Recruit volunteer speakers to be trained in the curriculum.  
- Train staff on home modification assessment for older adults with hearing loss. Begin in-home modification assessment for all program clients.  
- Develop peer group model.  
**YEAR TWO**  
- Hire desktop publisher for replication guide. Write/edit replication guide.  
- Continue educational sessions and screenings in communities and with professional organizations.  
- Continue in-home modification for those with hearing loss. |
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<td>8) Name the program.</td>
<td>To draw attention, the partners developed a marketing name for the project – <em>Hear Ye, Hear Me</em> – because it was positive and distinctive. The <em>Hear Ye, Hear Me</em> concept was built on two ideas — that town criers call out to the public on important issues, and, that everyone wants and deserves to be heard.</td>
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<td>9) Meet regularly to plan and evaluate.</td>
<td>The project partners met frequently at the outset and then at least every two months to plan and evaluate progress. The project manager was essential to keep the partnership on task and on schedule. Flexibility and openness to new approaches by all partners was key. The project was strengthened by the synergy of working together on the overall approach, on collaboratively solving problems that emerged, and through sharing resources and knowledge.</td>
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OBJECTIVE #1

Public Awareness

Develop and distribute promotional materials aimed at changing public attitudes about hearing loss and addressing the stigma associated with using assisted listening technology.

What we did:
- The project team created a humorous poster of women talking and each hearing something different. Fifty copies were printed and distributed throughout the four neighborhoods at community centers, offices, coffee shops, clinics and stores.
- The project team also created bookmarks with hearing information and contact information for assistance. They were available at four libraries, given out at educational workshops and enclosed in Meals on Wheels lunch bags.
- Two local newspapers were contacted, and subsequently wrote stories about the importance of being screened for hearing loss.

Suggested action steps:
- Create and display posters, bookmarks and other materials to raise community awareness. Determine optimum distribution points.
- Prepare a news release about the program. Contact local media and request that they publicize the program.

Lessons learned:
- Although the poster was funny and eye-catching, it only featured older women. It is important create materials that are age-and gender-inclusive.
- It is difficult to evaluate the effectiveness of the materials that were distributed in the community.

Appendix:
- Poster and bookmark (pg 24)

“I will go to see an audiologist now. I feel better prepared to know how to make an appointment and questions to ask and I feel better about myself.”
OBJECTIVE #2

Hearing Screenings and Otoscopic Checks

Make hearing screenings and otoscopic checks easily available to older adults.

What we did:

• University of Minnesota Audiology students and their instructor conducted free community hearing screenings at locations such as community centers, churches and senior high-rise buildings. Each program partner conducted two screening sessions. Resources for hearing loss follow-up were distributed; hearing loss professionals were present at one location to meet with those screened. Participants received follow-up calls if requested.

• Older adults were sometimes viewed as having early dementia when in fact they could not hear due to earwax build-up. Living at Home/Block Nurse program nurses were trained by the audiologist on use of an otoscope, an instrument used to examine the ear to identify signs of ear infection and wax build-up, and to conduct an exam. Four otoscopes were purchased for each program partner at a cost of $150 per otoscope.

• Once trained, Living at Home/Block Nurse program nurses checked homebound older adults for earwax during home visits.

Suggested action steps:

• Conduct hearing screenings at convenient locations such as community centers, churches and senior high-rise buildings and at events such as senior health fairs or “leisure age” group programs.

• At the hearing screenings, have a list of resources available if follow-up is required, such as visiting a physician or audiologist, learning new communication strategies, acquiring hearing aids, etc. If possible, invite hearing loss professionals to be present to discuss next steps with participants requiring follow-up.

• Confer with home nursing staff on how to incorporate otoscopic checks into home visits. Purchase otoscopes for home visit programs. Train nurses in their use to check for earwax. Include earwax checks during nursing home visits by the block nurse.

Lessons learned:

• Personal encouragement often helps in gaining an older adult’s consent to be screened. Some have difficulty accepting the possibility that they may have a hearing loss and also concerns about being able to afford hearing aids or other assistive equipment.

• If hearing screenings are conducted at a health fair or other larger event, make sure a quiet space is available for the tests.

• To successfully integrate otoscopic checks into home visits, nursing staff should be involved from the project’s outset. Sufficient time is needed to gain their buy-in and for orientation, training and incorporating the otoscope checks into their nursing practice.

Appendix:

• Otoscopic Exam Overview (pg 25)
• Ototoxicity Presentation Overview for health professionals handout (pg 26-28)
At least four low-income seniors received hearing aids at no cost due to the advocacy of Living at Home staff who located hearing aid financial resources for these clients.

A project partner colleague did not realize she had a hearing loss until she was checked at one of the program screenings. She now wears hearing aids.

An older man who was screened and referred to his physician reported back that his hearing loss was caused by earwax, and after its removal, his hearing returned to normal.

“ I went to a *Hear Ye, Hear Me* hearing screening and found out I needed a hearing aid. After getting one, I actually could hear birds singing. I didn’t realize how many sounds were out in the world that I had been missing.”
OBJECTIVE #3

Home Modifications

Provide older adults and caregivers/family members an easy way to assess the home environment for problem areas, and offer individualized community-based advocacy to help older adults stay connected to others and to access community-based long-term care services.

What we did:

- The home environment was assessed using a simple, user-friendly checklist developed by DHHS. This checklist included a list of potential solutions to each question’s response.
- Living at Home staff conducted home modification assessments for clients. Also, students from the University of Minnesota School of Nursing and students from Macalester College’s Global and Community Health course were recruited to conduct assessments.
- As part of the assessment checklist, a list of solutions – improvements and devices to adapt the home environment for people with hearing loss – were distributed to clients, along with a list of vendors who sell adaptive devices and equipment.
- The program staff assisted clients in filling out paperwork for adaptive equipment such as amplified phones provided by the state’s Telephone Equipment Distribution Program at no cost to those who meet income guidelines.

Suggested action steps:

- Train staff and volunteers to conduct home modification assessments.
- Seek volunteers to assist in assessments, such as students from local colleges and universities.
- Host presentations about home modification at senior high-rise buildings. Hand out the home modification checklist and instruct on use.
- Locate hearing loss resources to improve home environment, such as the Solutions and Vendors lists, and distribute list to clients.
- Assist clients in applying for government programs that provide hearing devices such as amplified phones.

Lessons learned:

- A valuable component to this effort was the training of local college students to conduct home assessments. Not only did this enable us to reach more older adults but students gained experience and insights about people living with hearing loss.
- Denial about hearing loss is common. To gain cooperation, it helps to present the assessment as a way to establish a baseline – e.g., “Let’s just see where you are right now and then check every six months or so.”

Appendix:

- Home Modification Checklist (pg 29)
- Solutions list (pg 30-34)
- Vendors list (pg 35)

“After a home modification screening, my care manager provided me with a pocket talker. I’m 92 years old and couldn’t believe what I was missing!”
**SUCCESS SNAPSHOTs**

★ The home modification assessments resulted in changes for many clients. For example, we installed several amplified phones at no cost to the senior through the Minnesota Telephone Equipment Distribution (TED) program; one client reported being able to talk more frequently with family members because of the amplified phone. See page 45 for TED contact information.

★ An 82-year-old woman with a profound hearing loss was given a home modification check by a Living at Home care manager. The care manager lent her a personal amplification device to try out for two weeks. When the care manager returned, the woman did not want to give up the device because it had helped her so much. She was then willing to be fitted for hearing aids. The care manager was able to assist her with getting a greatly reduced price through the Starkey Hearing Foundation Hear Now Program. This woman’s success started with a low-cost personal amplifier. It is important to remember that sometimes a low cost alternative can be a gateway for an older person to realize just what they have been missing.

★ One partner agency was having trouble delivering meals on wheels to a client with a hearing loss. After a home modification assessment was done, it was determined that the client could not hear the meals volunteer knocking on the door. The program purchased a doorbell designed for people with hearing loss – a light now goes on near the client’s chair when the doorbell is rung. The result has been no further delivery problems.
OBJECTIVE #4

Education

Educate older adults on new technologies available and how to access them, and educate volunteers, family members and care providers on techniques for improving communication, emphasizing their shared responsibility.

What we did:

• The DHHS hearing loss specialist developed and gave a one-hour community educational session on hearing loss for older adults, entitled *Demystifying Hearing Loss and Hearing Aids*, at various locations. The content centers on the barriers that keep older adults from acknowledging and addressing hearing loss.

The number of community educational sessions was expanded by recruiting volunteer speakers, individuals with a health care background and public speaking experience. The volunteers underwent training using a curriculum developed by the University of Minnesota audiologist and DHHS hearing loss specialist. Following training, two volunteer educators presented the *Demystifying Hearing Loss* presentation to older adults at seven locations.

• The U of M audiologist gave four one-hour Clear Speech educational sessions aimed at hard-of-hearing adults and their caregivers, as well as professionals who work with hard-of-hearing adults. These presentations focused on the impact of hearing loss on speech understanding; the benefits and limitations of hearing aids; assistive technologies for hard-of-hearing adults; effective communications strategies; the role of speech reading in conversation; and Internet resources available for hard-of-hearing adults.

• A “hearing house” was set up at an annual senior health fair. Participants were able to try out various kinds of hearing loss technology.

• A partnership was set up with the State of Minnesota’s Telephone Equipment Distribution (TED) program to help older adults gain access to amplified phones.

• After the project concluded, project partners presented a summary to health care professionals at the Minnesota Department of Health’s annual Many Faces of Community conference in October, 2011.

Suggested action steps:

• Host community educational sessions on the barriers that keep older adults from acknowledging and addressing hearing loss. (*Demystifying Hearing Loss and Hearing Aids*)

• Recruit and train volunteers to present the sessions. Volunteers should have some health care and public speaking background.

• Host educational sessions to improve communication targeted at individuals with hearing loss and their caregivers and families. (*Clear Speech*)

“This presentation helped me decide to be more patient with myself and others, and to use the help available out there.”
Lessons learned:

- Promote the sessions generally, not just to older adults. Family members brought older adults because they thought their relative needed help.
- Attendees at the Demystifying Hearing Loss sessions often stayed afterward to speak with the presenter about their personal situation. Allow extra time for this. Consider having several experts on hand for private consultations.
- Dividing the volunteer speaker training into two half-day trainings with lunch provided time for participants to process information. This is also an opportunity to train volunteers on use of the project’s laptop computer and projector.
- Conducting short pre- and post-session surveys of those in attendance gives valuable feedback on what participants learned.
- While the Clear Speech sessions were delivered by a licensed, certified audiologist, other professionals familiar with hearing loss and its effect on communication could present this material.

Appendix:

**Demystifying Hearing Loss and Hearing Aids**

- Presentation overview (pg 36-37)
- Evaluation form (pg 38)
- Assistive devices handout (pg 39)
- Where to purchase devices developed for people with a hearing loss -- handout (pg 40)
- Training curriculum on Demystifying Hearing Loss and Hearing Aids for volunteer speakers is available in Power Point. Contact Maureen Davidson at 651.698.5493 or email maureend@west7th.org

**Clear Speech**

- Pre-test questionnaire (pg 41)
- Post-test questionnaire (pg 42)
- Communications Strategies handout (pg 43)

**Others:**

- Regional Deaf and Hard of Hearing Services Offices handout (pg 44)
- State and National Hearing Loss Organizations handout (pg 45)

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**SUCCESS SNAPSHOTS**

★ ★ ★ Survey results showed that 93% of participants found the Demystifying Hearing Loss educational session helpful; 99% said they would change something about their life related to hearing loss as a result of what they learned.
OBJECTIVE #5

Community Outreach

Develop hearing-friendly communities by supporting businesses and community organizations in making their facilities more accommodating to those with hearing losses.

What we did:

• The DHHS hearing specialist developed a checklist/survey to help businesses and community gathering places assess how “hearing friendly” their facilities are.

• Each partner decided on one organization to survey, choosing from such locations as recreation centers, churches and synagogues, and community centers. A list of assistive technology resources was offered to help the organization make helpful accommodations for individuals with hearing loss.

• A number of area businesses and organizations were contacted by letter, asking if they would like to make portable amplification systems that had been purchased through the Hear Ye Hear Me grant. No responses were received.

Suggested action steps:

• Contact area businesses or organizations and invite their participation in the “How hearing friendly is your business?” survey. Conduct survey and assist with follow-up based on survey results.

• If portable amplification equipment is available for rental, send letter and needs survey to area businesses and organizations to let them know of its availability.

Lessons learned:

• Businesses and organizations may feel threatened by the idea they may need to change. It is important to explain how the suggested changes can benefit their customers or members. Many changes involve little or no cost.

Appendix:

• How “hearing friendly” is your business? Checklist handout (pg 46)

• Cover letter to businesses (pg 47)

• Survey of needs and request for amplification equipment (pg 48)

SUCCESS SNAPSHOT

Four organizations made changes to better accommodate people with hearing loss, including a church, synagogue, community center and business office.
OBJECTIVE #6

Peer Support

Facilitate small groups of families/friends, including those with hearing loss and those who are close to them, to improve communication and understanding.

What we did:

• A number of peer support models were considered, including a support group program in Illinois for people with hearing loss and their families.

• A six-week program, named *Sound Effects*, was designed by the state hearing specialist and project manager to include support, resources and problem solving skills, and the opportunity to discuss problems and frustrations related to hearing loss.

• Promotional flyers were distributed at high-rise buildings and churches and emailed to professionals working with older adults, drug stores and local clinics.

Suggested action steps:

• Consider offering a peer support group such as the *Sound Effects* model.

Lessons learned:

• Recruiting through promotional flyers posted at senior high-rises, community centers and non-profit agencies was not effective, even with offering incentives like lunch or free hearing aid batteries. A more effective approach might be to introduce the peer support program at either the *Demystifying Hearing Loss* or *Clear Speak* educational programs, which were well-attended.

• While several individuals indicated interest, the numbers were not sufficient to follow through with this offering.

Appendix:

• *Sound Effects* Caregiver Education promotional flyer (pg 49)

• *Sound Effectives* Caregiver Group six-week agenda (pg 50)

“I’m going to show my husband the handout I received from the educational workshop. I’m tired of him walking away from me when he talks and I can’t hear him!”
Final Summary

Addressing a persistent problem

Hearing loss is prevalent among older adults and contributes to a diminished quality of life for many people in this large and growing segment of the population. The costs of untreated hearing loss are high, both to individuals and society, including isolation, depression, relationship issues and misdiagnosis of illness such as Alzheimer’s Disease.

Although some older adults might be aware of their hearing loss, many more do not seek assistance with this loss of communication, for a variety of reasons. Some do not realize the extent of their loss and how it is affecting their lives. Others may be unwilling to ask for help because they feel embarrassed or ashamed about their impairment. Still others may worry about the use of hearing aids – their cost, appearance, care and operation. Many older adults are simply unaware of assistive technologies that could improve their daily life.

A community-based approach

The Hear Ye, Hear Me project sought to break through barriers by developing effective community-based strategies to reach and assist older adults with hearing loss. The model brought trusted community agencies that have wide access to older adults together with experts in hearing loss. Multiple strategies were developed to reach the target population recognizing that reducing long-held resistance to hearing loss takes time and persistence.

Effective strategies

In evaluating the project’s results, the hearing screenings, otoscope checks, in-home modification assessments and educational sessions were highly successful. Many older adults were reached and dozens received help that undoubtedly improved their quality of life. In addition, the community agencies have integrated a number of these strategies into their ongoing programming and practice. Other strategies, including community outreach and peer group support, require further development but hold promise for the future.

In the end, this project clearly demonstrated that older adults will respond positively to hearing loss programs that are offered by agencies they know and trust, and in familiar and non-threatening settings such as community centers, senior high-rises and their own homes.

“ My mother is very hard of hearing. Now I’m more patient with her. I also make sure I look at her when I speak. ”
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Sample Outreach Materials

Here Ye! Hear Me!!

One out of ten Minnesotans has a hearing loss. Ask yourself the following questions:

• Are you straining to understand conversations?
• Do you have a problem hearing over the telephone?
• Do many people seem to mumble, or not speak clearly?

Don’t let untreated hearing loss lead to:

• Isolation
• Depression
• Loss of independence

Living at Home/Block Nurse Program can help you help yourself, or a loved one.

Call 651-222-7884

BOOKMARK

POSTER

Does this sound familiar? Getting frustrated repeating yourself?

I bumped my head What happened to Fred? You got a new bed?

Please call 651.222.7884 to find out about resources available.

Funding provided by Department of Human Services.

Services provided through Living at Home/Block Nurse Programs in the following communities:

Highland Park Macalester-Groveland
Summit Hill West Seventh
The Otoscopic Exam

The Otoscope is a device used by physicians, audiologists, and other allied healthcare providers. It contains a bright light as well as a magnifying lens. Your healthcare provider can use the otoscope to look into your ears and identify whether there are obvious problems, along with other tests that they might conduct during your visit. Typically, the otoscopic exam is very brief - often lasting under a minute for both ears! Although not a test of your hearing, an examination with the otoscope can help your healthcare provider determine whether:

- the eardrum is intact and typical in appearance,
- there are obvious signs of infection in your ear canal or middle ear,
- there is a significant amount of wax in your ear that might be contributing to a problems with hearing.

The otoscopic exam is an important step on your path to healthy hearing!
Presentation on Ototoxicity for Health Professionals

Ototoxic Medications—Part One
Elizabeth A. VandeWaa, Ph. D.
Mark DeRuiter, MBA, Ph.D.
Virginia Ramachandran, Au.D.

Joint Commission—New Paths
• New Joint Commission document “Advancing Effective Communication, Cultural Competence, and Patient-and Family-Centered Care”.
• Hospital staff must document patient communication and sensory needs upon admission
• Staff should be aware of changes in communication status during treatment and put in place accommodations.

Basics of Hearing
• External and middle ear transmit sound waves to the fluid-filled inner ear, amplifying the sound energy in the process. The cochlea in the inner ear converts the sound waves into nerve impulses. Hair cells are the receptors for sound.
• Human ears can detect frequencies from 20-20,000 cycles/sec, are most sensitive to frequencies at 1000-4000 cycles/sec.

Structures of the Ear
• Outer
• Middle
• Inner
• Eighth cranial nerve

What Parts of the Cochlea are Vulnerable to Ototoxicity?
• The hair cells, which are part of the inner ear.
  – Once damaged, these cells do not regenerate.

Structures of the Ear
• Vestibular apparatus

Basics of Balance
• The vestibular apparatus in the inner ear provides information for the sense of equilibrium and for coordinating head movements with eye and postural movements. Hair cells in the vestibular apparatus respond to movement.

Where Do These Drugs Cause the Most Damage?
• INNER EAR cochlea and vestibular apparatus
• As a result, BOTH hearing and balance

Why Does Ototoxicity Occur?
• The ear may be able to concentrate ototoxic agents in the fluid compartments that bathe the inner ear
• These drugs may affect the physiology of the ear (for example, the ability of the ear to make endolymph may be affected)
• The ear is uniquely susceptible to these agents

Incidence of Ototoxicity
• Difficult to determine because of differences in severity and onset
• May present as either hearing loss or vertigo
• Drug-induced deafness is estimated to occur in about 1.6 to 3 per 1000 medical patients

Patients Most at Risk for Ototoxicity
• Old age
• Infancy
• Renal or hepatic insufficiency
• Pregnancy
• Those in a noisy environment
• Those who are using combinations of ototoxic drugs
• Those without access to monitoring

Ototoxicity
• May encompass hearing
  – Deafness
  – Tinnitus
  – Difficulty with background noise
• May affect balance
  – Dizziness when performing a task such as driving, walking, etc.
  – Dizziness when at rest

The Consistent Related Factor is That There is None
• Not dose-dependent in all cases
• Not route-dependent in all cases
• Not age-dependent in all cases
• Not duration-dependent in all cases

But There ARE Risk Factors
• Dehydration
• Extremes of age
• Concomitant use
• Sometimes rapid infusion
• Sometimes dose escalation
• AT LEAST THESE PATIENTS WARRANT MONITORING
Common Ototoxic Agents – At least 96 have been identified!

- Antibiotics
  - Aminoglycosides, Macrolides, Vancomycin, Minocycline
- Loop Diuretics
  - Furosemide Ethacrynic acid
- NSAIDs
  - Aspirin, Ibuprofen, Indomethacin, Phenylbutazone
- PDEs
- Cisplatin

Aminoglycosides

- Relatively narrow-spectrum
  - Effective against gram negative aerobes
  - Not absorbed from the GI tract, so usually used parenterally
  - 7 are approved for use in the U.S.
  - Most often used are: Gentamicin, Tobramycin, and Amikacin

Ototoxicity and Aminoglycosides

- All of these drugs are potentially ototoxic
- Best if administered once daily rather in divided doses
  - Monitor trough dose
  - If trough levels are high, the drug can not be cleared from susceptible cells in the ear
  - Ototoxicity is increased if AGs are used with ethacrynic acid, or for more than 10 days, or in a patient with renal compromise

Trough Levels of AGs

- To minimize risk of ototoxicity, trough levels should be BELOW:
  - Amikacin: 5-10 mcg/mL
  - Gentamicin: 1-22 mcg/mL
  - Tobramycin: 1-2 mcg/mL
- Draw trough level one hour before the next dose for patients receiving once-a-day dosing

Ototoxicity and AGs

- First sign is high-pitched tinnitus, followed by high-frequency hearing loss
  - Audiometric testing is needed to detect this
- Vestibular damage is first seen as a headache of 1-2 day duration, followed by dizziness, nausea, unsteadiness, vertigo
- Irreversible!
- d/c AGs at first sign

Rules for AGs

- Monitor trough levels
- No more than 10 days
- Do not use with ethacrynic acid. Other loop diuretics OK—but monitor.
- Watch in patients with renal impairment
- Monitor for cochlear damage
- Consider pre- or co-treatment with aspirin?

Macrolides

- Spectrum similar to penicillin; May be used in PCN-allergic patient
- Erythromycin may cause transient hearing loss in high doses
- Keep dose of Erythromycin less than 2-4 g/day
  - Even lower in susceptible individuals

Vancomycin

- Used for CDAD, MRSA, and serious infections in patients who cannot take penicillins
- Usually administered parenterally
- May cause irreversible ototoxicity
  - Usually when plasma level exceeds 30 mcg/mL
  - Seen in patients getting high dose, or in renal impairment, or for long duration, or when other ototoxic meds are also used
  - Monitor! Dose LESS than 45 mcg/mL at all times!!

Minocycline

- Tetracyclines are broad spectrum antibiotics, but due to resistance, their use is limited to certain niches.
- Minocycline (Minocin, Dynacin) showing some utility against rheumatoid arthritis
- Can cause vestibular damage including dizziness, vertigo, lightheadedness
  - More prevalent in females?

Loop Diuretics

- High-ceiling diuretics include Furosemide (Lasix), Ethacrynic acid (Edecrin), Bumetanide (Bumex), and Torsemide (Demadex).
- Are indicated for edema caused by HF, chronic renal disease, and cirrhosis. Furosemide and Torsemide are approved for HTN as well.
- Furosemide causes transient ototoxicity
- Ethacrynic acid may cause irreversible hearing loss
- Use caution especially when using with aminoglycosides (a common occurrence)
- Rapid infusion is most commonly associated with hearing loss and vertigo

Loop Diuretics—How Much is Too Much?

- Ethacrynic Acid: Doses of 50-100 mg IV cause ototoxicity (50 mg q 2 h is therapeutic range)
- Furosemide: Doses of 1-2 g IV (20-40 mg q 2 h is therapeutic); Doses of 160-800 mg PO/day are ototoxic (20-80 mg q day or bid is therapeutic for most)
  - Max daily PO dose is 600 mg
NSAIDs
• Aspirin is primary culprit for ototoxicity
• Indicated for arthritis, moderate pain, fever
  – Low-dose for inhibition of platelet aggregation
• Maximum daily dose is 8000 mg
Aspirin-Induced Ototoxicity
• Dose and concentration-related
• Daily doses of >2.7 g cause ototoxicity in 0.31.7% of patients. Doses of 4 g or more cause tinnitus in over 50% of patients and hearing loss in over 25%
• May affect cranial nerve function
• Considered reversible

PDE Inhibitors
• Sildenafil (Viagra), Vardenafil (Levitra) and Tadalafil (Cialis) are used to treat ED. Sildenafil is also approved for pulmonary arterial hypertension.
• Sudden hearing loss has been reported
  – Usually in one ear
  – Sometimes associated with dizziness, vertigo, tinnitus
  – May be partial or complete
  – Hearing returned in 1/3 of cases
• If hearing loss occurs, d/c the drug (unless it’s for PAH)

Platinum Drugs
• Cisplatin is approved for metastatic testicular and ovarian cancer and advanced bladder cancer
  – Off-label use for lung cancer and head and neck cancers
• Ototoxicity presents as tinnitus and high-frequency hearing loss
• Carboplatin has less incidence of hearing loss

Dangerous Combinations
• Aminoglycosides or Macrolides + Loop diuretics or a noisy environment
• Cisplatin + radiotherapy, noise exposure, or other antineoplastic agents

Suspect Ototoxicity When...
• Hearing seems compromised
  – Patient does not respond to nurse or other health care workers
  – Family members indicate concern
  – Patient complains of “cotton in ear”, “stuffy head” or “ringing in ears”
  – Patient is speaking in an elevated tone

Suspect Ototoxicity When...
• Vestibular problems present
  – patient feels dizzy when ambulating or sitting up quickly, or when eyes are closed
  – vomiting, nausea, lightheadedness, tinnitus, ataxia, tinnitus, vomiting, nausea are seen
  – patient complains of feeling dizzy “all the time”
  – patient feels he/she cannot do activities of daily living (driving, work, self-care) without a risk

Nursing Considerations for the Patient with Ototoxicity
• Consider bedside hearing tests or audiologist consult
• Check electrolytes, blood pressure, fluid balance
• Check nutritional status
• Arrange for rails, support furniture, and a cane
• MONITOR DOSES OF POTENTIALLY OTOTOXIC DRUGS
## Home Modification Checklist

The goal of the *Home Modification Checklist* is to provide those with a hearing loss, their caregivers, family members or other interested persons an easy way to assess the home environment for problem areas. Once the problem areas are identified, solutions are suggested to help the person with a hearing loss feel safe and independent in their home. For more information or further assistance, contact your local Deaf and Hard of Hearing Services (DHHS) office.

<table>
<thead>
<tr>
<th>Difficulty hearing</th>
<th>Yes</th>
<th>No</th>
<th>Go to pg</th>
</tr>
</thead>
<tbody>
<tr>
<td>the doorbell or knocking at the door?</td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>the smoke detector?</td>
<td>Yes</td>
<td>No</td>
<td>30</td>
</tr>
<tr>
<td>the carbon monoxide detector?</td>
<td>Yes</td>
<td>No</td>
<td>31</td>
</tr>
<tr>
<td>weather warning sirens?</td>
<td></td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>the existing security system alarm?</td>
<td>Yes</td>
<td>No</td>
<td>31</td>
</tr>
<tr>
<td>appliance buzzer/timer?</td>
<td>Yes</td>
<td>No</td>
<td>31</td>
</tr>
<tr>
<td>the alarm clock?</td>
<td></td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>the telephone ring?</td>
<td>Yes</td>
<td>No</td>
<td>32</td>
</tr>
<tr>
<td>well on telephone?</td>
<td>Yes</td>
<td>No</td>
<td>32</td>
</tr>
<tr>
<td>the television, radio or stereo? Or, is the television, radio or stereo too loud for other members of the household?</td>
<td>Yes</td>
<td>No</td>
<td>33</td>
</tr>
<tr>
<td>people trying to get his/her attention?</td>
<td>Yes</td>
<td>No</td>
<td>33</td>
</tr>
<tr>
<td>running water?</td>
<td>Yes</td>
<td>No</td>
<td>33</td>
</tr>
<tr>
<td>well in certain rooms?</td>
<td>Yes</td>
<td>No</td>
<td>34</td>
</tr>
</tbody>
</table>

The Home Modification Checklist can also be found at [www.dhhsd.org](http://www.dhhsd.org) (Check on “Publications and Factsheets” and scroll down list).
The Door (see vendor list on page 35)

One solution is to purchase a special doorbell from vendors who specialize in products for people who are deaf or hard of hearing. These specialized products are NOT available at local hardware or lumber stores. There are doorbells that flash a light or activate a vibrating pager. Other devices are specifically designed to work with the intercom type of doorbell found in many apartment buildings.

A second solution is to purchase an alerting system that uses the existing doorbell system. These alerting systems can include transmitters that alert the user to various environmental sounds such as a doorbell, smoke detector, telephone, crying baby, etc. Examples of alerting systems include Alertmaster, Simplicity, Silent Call, and Sonic Alert, and can only be purchased from vendors who specialize in products for people who are deaf or hard of hearing.

A third solution is to purchase a wireless doorbell system from a hardware store (larger hardware stores or regional/national chains are usually best bets). It is very important to check that the system provides a volume control. The ability to increase the volume of the doorbell is an important feature for most hard of hearing people. Many of these wireless doorbell systems allow the use of additional receivers as needed, providing the option of placing them throughout the house. It is recommended that one of these receivers is set near where the hard of hearing person prefers to sit. Note: Heath Zenith manufactures a device called the Door Chime and Chime Extender that can be used with the home’s existing doorbell system. The Door Chime and Chime Extender can be purchased at many of the national hardware chain stores.

For those who rely on hearing someone knocking on the door, there are devices that activate a flashing light when someone knocks at the door (they are sensitive to the vibration). The limitation of this device is that the resident must be able to see the door from where they are sitting.

Smoke Detector (see vendor list on page 35)

There are smoke detectors that use a flashing strobe light, an extra loud audible alarm, or a pillow vibrator to alert the deaf or hard of hearing person that the detector has been activated. Most of these smoke detectors are hard wired and need to be checked by an electrician (or the manufacturer) to assure they will work with existing smoke detectors. This is especially important when installation occurs in condominiums or apartment buildings.

There are some smoke detectors designed for people with a hearing loss that plug into a standard electrical outlet so no hardwiring is necessary. When smoke is detected, a strobe light and loud alarm are activated.

To use existing fire and smoke alarms, an alerting system may be an option. Transmitters may be purchased with these systems that alert the user to various environmental sounds such as a smoke detector, telephone, doorbell, crying baby, etc. Examples of alerting systems include Alertmaster, Simplicity, Silent Call, and Sonic Alert.
Carbon Monoxide Detector (see vendor list on page 35)

There are specially modified carbon monoxide detectors that activate a strobe light when carbon monoxide is detected.

Weather Warnings (see vendor list on page 35)

Some weather radios are designed to allow the user to connect attention-getting devices like strobe lights and bed-shakers. Check with electronics stores, electronics catalogs or one of the vendors listed on page seven.

Security System Alarm (see vendor list on page 35)

It is best to contact the company that installed the existing security system. Most major companies are able to augment the existing system with strobe lights in one of two ways: hardwiring strobe lights in specified areas or using a plug-in unit that you can add a strobe light (or a bed-shaker) and then plug the unit into an electrical outlet. Silent Call manufactures a voltage input fire alarm transmitter that can be used with an existing home security system.

It may be possible to use the existing security system with an alerting system. Alerting systems allow the purchase of transmitters that will alert the user to environmental sounds such as an alarm, carbon monoxide detector, smoke detector, telephone, etc. Examples of alerting systems include Alertmaster, Simplicity, Silent Call, and Sonic Alert. These alerting systems can only be purchased from vendors who specialize in products for people who are deaf or hard of hearing.

Appliance Buzzer/Timer (see vendor list on page 35)

There are not a lot of options with appliance buzzers and timers. There are vibrating wristwatches and portable alarm clocks that also function as timers. These can be used when you set the microwave or oven.

Alarm Clock (see vendor list on page 35)

Alarm clocks designed for people with a hearing loss come in a wide variety of styles, sizes, and various features. These clocks are available only through vendors who specialize in products for people who are deaf or hard of hearing.
Telephone (see vendor list on page 35)

The Telephone Equipment Distribution (TED) Program is available to Minnesota residents. The TED Program loans specialized telephone equipment to people who are hard of hearing, deaf or who have a speech impairment or physical disability. The telephone equipment is provided on a long-term basis at no cost. To qualify for the TED Program, the person must: 1) be a Minnesota resident; 2) have a hearing loss, speech impairment or physical disability that limits the use of a standard phone (which includes being able to hear it ring); 3) have phone service in the home or have applied for phone service; and 4) have a family income equal to or below the guidelines. To find out the current income guidelines and to receive an application, call 1-800-657-3663 (Voice) or 1-800-657-3513 (TTY). The website for the TED Program is: www.tedprogram.org.

For those who do not meet the income guidelines, there are several phones, amplifiers, phone signalers, and phone ringers available through vendors who specialize in products for people who are deaf or hard of hearing. Note: Many phones available through local stores have volume controls, but they are rarely strong enough for those with a significant hearing loss. The exception is RadioShack – they carry a few models of amplified telephones.

Makers of cell phones provide accommodations for people with a hearing loss. Contact a local store that sells cell phones and ask about features specifically for people who are deaf or hard of hearing. For people who have hearing aids, look for a cell phone that has a M-3 or M-4 rating (if using the hearing aid in microphone setting on the phone) or a T-3 or T-4 rating (if using the hearing aid in telecoil setting on the phone.)

There are voice-carry-over (VCO) phones and CapTel phones available for those who cannot hear on a phone but have understandable speech. To use the VCO phone or CapTel phone, all calls must go through a relay service – a free service for all Minnesota residents.

Television, Radio or Stereo (see vendor list on page 35)

One way to address this problem is through the use of assistive listening devices. Assistive listening devices can often be used with hearing aids. For more information about how to use assistive listening devices with hearing aids, contact your local DHHS office (see page 8).

There are different types of assistive listening devices. The most commonly used are the personal amplifier, FM system, and infrared system. For most assistive listening devices there are a variety of earphone and headphone styles to choose from– it all depends on the preference of the listener. For people using hearing aids equipped with a telecoil, a neckloop or silhouettes (t-links) can be used with assistive listening devices.

**Personal amplifiers** are portable and easily moved from one area to another. The microphone of the personal amplifier can be attached to an extension cord and placed near the television, radio or stereo speaker. Caution: if the extension cord is used, there is a danger of tripping over the cord. It is possible to go to an electronic store and purchase a long audio extension cord and run it along the baseboard from the preferred seating place to the television, radio or stereo. A personal amplifier is also useful for one-on-one conversations, especially in noisy environments such as inside a vehicle or restaurant.
**FM systems** transmit sound via a radio signal from the transmitter (which includes the microphone) to the receiver. FM systems can transmit sound from as far away as 100-200 feet. The transmitter portion of the FM system can be placed near the television, radio or audio speaker for easier listening. FM systems are portable and easily moved from one area to another. The FM system is used in classrooms, at workshops, in places of worship, and many other places and situations.

**Infrared systems** transmit sound from a transmitter to a receiver via light waves. The transmitter portion of the infrared system can be placed near the television, radio or stereo speaker for easier listening. Infrared systems are often used in movie theaters, theatres, and concert halls.

Note: **Audio induction loop systems** can be used for people who have hearing aids with a telecoil. **Bluetooth** technology is gaining popularity with the development of Bluetooth enabled devices and hearing aids.

Another option is to run headphones, neckloop (for people who have a hearing aid with a telecoil) or an auxiliary speaker from the television, radio or stereo to the preferred seating place of the person with a hearing loss. If at all possible, place the speaker at ear level and have a volume control on the speaker.

Closed captions can be accessed on most TVs by simply using the menu function of the television and turning on the captioning feature (all televisions manufactured after July 1993 have a built-in decoder chip). On some televisions, the captioning feature is simply turned “on” or “off”. On other televisions, there may be a list of options given – select “CC1.” Spanish captions are available on some television programs – select “CC2.” Note: Closed captioning is a free service and you do not have to call anyone to activate it for you – just turn on the captioning feature as described above. Most VHS tapes and DVDs are captioned, but just like television programs not everything is closed-captioned.

**Getting Attention** (see vendor list on page 35)

There are a few personal or private pagers available from vendors who specialize in products for people who are deaf or hard of hearing. These pagers are not activated through a paging service or company, so there are no monthly fees associated with these pagers. The personal pager has been useful in situations where a member of the household has an illness or physical disability and needs to get the attention of the hard of hearing or deaf person. This has also been useful for outdoor activities such as hiking or biking to get the attention of the deaf or hard of hearing person.

**Running Water**

One solution to this problem is to visually check and double-check to make sure the water has been turned off. Making little reminder signs to check the faucets before leaving the room or house may also be helpful.

Another solution is to contact a local plumbing supply company for information about spring-loaded handles or electronic eye activated faucets or foot/knee controlled faucets (developed for those with physical disabilities).
Room Acoustics

Most people with a hearing loss discover that they are able to hear and understand speech much better in particular rooms of their home. This is because of room acoustics. The less distance sound has to travel and the less hitting and bouncing off hard surfaces the better the acoustics. Often acoustical treatment to the walls or furniture fixtures works best in absorbing sound.

Acoustical tiles (12”x12”x1”) can be installed on the wall with double-sided tape or hook-and-loop fasteners. With creative use of paint, these acoustical tiles could be an artistic addition to the room! Tapestries and other wall hangings also help in absorbing sound.

Windows and doors should be examined, especially if the home is located on a busy street. Weather gaskets on the windows may need replacing. Foam gasketing around the frame and/or a drop seal at the bottom of the door may be needed.

Large, plush sofas and chairs will absorb some sound in the room. While carpeting does not provide a lot of acoustical absorption, every little bit helps.

In addition to making changes to improve room acoustics, using a personal amplifier or FM system may be extremely beneficial to the person with a hearing loss. For more information about personal amplifiers and FM systems, see page 24.
This is a partial list of commonly used mail order companies for homemodification products. You can call them to request a catalog be sent to your home or access their website for an on-line catalog.

**HARC Mercantile, Ltd.** (Portage, MI)
800-445-9968 (Voice & TTY)
800-413-5248 (FAX)
Website: www.harcmercantile.com
E-mail: info@harc.com

**Harris Communications, Inc.**
(Eden Prairie, MN)
800-825-6758 (Voice)
800-825-9187 (TTY)
952-906-1099 (FAX)
Website: www.harriscomm.com
E-mail: info@harriscomm.com

**Hear-More** (Farmingdale, NY)
800-881-4327 (Voice)
800-281-3555 (TTY)
631-752-0689 (FAX)
Website: www.HEARMORE.com
E-mail: sales@hearmore.com

**HITEC Group International, Inc.**
(Burr Ridge, IL)
800-288-8303 (Voice)
800-536-8890 (TTY)
Website: www.hitec.com
E-mail: customersolutions@hitec.com

**LS & S** (Buffalo, NY)
800-468-4789 (Voice)
866-317-8533 (TTY)
877-498-1482 (FAX)
Website: www.LSSproducts.com
E-mail: info@LSSproducts.com

**NFSS Communications**
(Lake Villa, IL)
800-950-9655 (Voice & TTY)
847-265-8044 (FAX)
Website: www.nfss.com
E-mail: assistedaccess-nfss@comcast.net

**SOUNDBYTES** (New York, NY)
888-816-8191 (Voice)
516-937-3546 (TTY)
516-938-1513 (FAX)
Website: www.soundbytes.com
E-mail: info@soundbytes.com

**WEITBRECHT** (Santa Monica, CA)
800-233-9130 (Voice & TTY)
310-450-9918 (FAX)
Website: www.weitbrecht.com
E-mail: sales@weitbrecht.com

**NOTE:** Since prices vary from company to company, you may want to check prices of more than one company.

*This is not an endorsement by DHHS for any specific vendor, product, company or manufacturer.*
Possible consequences of untreated hearing loss

- Loss of independence
- Less social activity
- Changes/problems in relationships
- Increased worry and anxiety
- Depression

One of the biggest problems is denial of the hearing loss

- “Hearing loss may change your life, but your life need not be any less rewarding and fulfilling because you have a hearing loss.” – Neil Bauman, Ph.D.
- “But you have to address the hearing loss in order to move on to live that rewarding and fulfilling life.” – Mary Bauer

The audiologist

- They are specialists that are trained to test your hearing.
- If a hearing test is conducted in a regular room or in your home, it is a hearing screening. The only time it is okay to do this is at a health fair or when the person cannot leave his/her home.
- You may want to contact the Minnesota Department of Health to see if your audiologist is licensed with the State. Call 651-201-3729 or go to the Minnesota Department of Health website: http://pqc.health.state.mn.us/hopVerify/loginAction.do and type in the name—in the Occupation Type box, choose “Licensed Audiologist.”
- Upon your request, the audiologist must give you a copy of your audiogram—free of charge. Keep a file of your hearing test results.

When purchasing a hearing aid, it is recommended that you find an audiologist or hearing instrument dispenser that has several brands of hearing aids to choose from.

Types of hearing aids

- Analog/Conventional—hard to find
- Programmable Analog—discontinued
- Digital

Hearing aid styles

- Behind-the-Ear (BTE)
- In-the-Ear (ITE)
- Completely-in-the-Canal (CIC)
- Open Fit or Open Ear
- Canal Receiver Technology (CTR)

What’s available in hearing aids

- Adaptive Feedback Management
- Automatic Program Selection
- Automatic Telecoil
- Binaural Wireless Connectivity
- Built-in FM Receiver with Remote Microphone
- Channels and Bands
- Data Logging
- Directional Microphones
- Multiple Programs
- Remote Control
- Wide Dynamic Range Compression
- And More!

How to choose a hearing aid (from Dr. Mark Ross)

- Can You Hear Better With the Hearing Aid(s)?
- What Are Your Communication Needs?
- What is Your Lifestyle?
- Is It Worth the Cost?
- Consider Hearing aids Labeled as:
  - “Entry Level”
  - “Basic”
  - “Mid-level”
Hearing aid laws

- To sell hearing aids in Minnesota, a hearing instrument dispenser must be certified. You may want to contact the Minnesota Department of Health to see if s/he is certified with the State. Call 651-201-3729 or go to the Minnesota Department of Health website: http://pqc.health.state.mn.us/hopVerify/loginAction.do and type in the name—in the Occupation Type box, choose “Certified Hearing Aid Dispenser.”
- You have 45 days to try out your hearing aid(s). At the end of that time, you can return them to the audiologist or hearing instrument dispenser for a refund. They are allowed to keep up to $250 of the total cost of the hearing aid(s) per contract, but the rest must be returned to you.
- If you have a complaint with your hearing aid dispenser or audiologist, you can file a complaint with the Minnesota Department of Health. Call 651-201-3729 or go to the Minnesota Department of Health website: http://www.health.state.mn.us/facilities.html and scroll down until you see “Professions” and Complaints.” Click on “Audiologist” or “Hearing aid dispenser.”

Assistive Listening Devices (ALDs)

- Are “binoculars” for the ears.
- Can be used with hearing aids or without hearing aids. If using with a hearing aid that has telecoils, you will need a neckloop, silhouettes, or headphones that are telecoil compatible.

Types of ALDs

- Personal Amplifiers
- FM Systems
- Infrared Systems

Telephones

- Contact the Telephone Equipment Distribution (TED) Program for more information. Call 651/431-5945 or if you use a TTY, call 1-888-206-6555.

Purchasing a cell phone if you have hearing aids

- Look for a M3 or M4 rating if you will use it with your hearing aid on the microphone setting.
- Look for a T3 or T4 rating if you will use it with your hearing aid on the telecoil setting.
- It is recommended that you try out the phone in the store before buying it.
- http://www.fda.gov/cellphones/hearingaids.html

Alerting devices

- Doorbells
- Clocks
- Fire Alarms
- All-In-One Alerting Systems

Developing communication strategies

People need to inform others of their communication needs.
- See handout on communication strategies.
- See Clear Speech booklet.
- See Good Communication Habits booklet.

Don’t give up!

- See Resources List
Demystifying Hearing Loss & Hearing Aids Evaluation Form

Photocopy this page and cut out forms to hand out.

Demystifying Hearing Loss and Hearing Aids

1. This presentation met my needs (please circle one):
   - Very Much
   - Yes
   - Somewhat
   - Not Really
   - Not at All

2. Write down one device mentioned during the presentation that might be beneficial to you or someone you know:

   _______________________________________________________________________________________

3. Comments:

   _______________________________________________________________________________________
   _______________________________________________________________________________________
   _______________________________________________________________________________________

THANK YOU IN ADVANCE FOR FILLING OUT THIS FORM.

Demystifying Hearing Loss and Hearing Aids

1. This presentation met my needs (please circle one):
   - Very Much
   - Yes
   - Somewhat
   - Not Really
   - Not at All

2. Write down one device mentioned during the presentation that might be beneficial to you or someone you know:

   _______________________________________________________________________________________

3. Comments:

   _______________________________________________________________________________________
   _______________________________________________________________________________________
   _______________________________________________________________________________________

THANK YOU IN ADVANCE FOR FILLING OUT THIS FORM.
Assistive Devices

Check the devices you think might be beneficial for you or for someone you know with a hearing loss.

☐ Personal Amplifier Listening Device
☐ FM Listening Device
☐ TV Listening Device
☐ Music Links and Neckloop Used with Electronic Devices (Hearing Aid must have a T-Coil)
☐ Amplified Telephone
☐ CapTell Telephone
☐ Phone Signaler
☐ Doorbell with Amplified Chime
☐ Door Chime and Chime Extender
☐ Alarm Clock with Extra Loud Audio and Bed Shaker
☐ Alarm Clock with Strobe Light
☐ Smoke Alarm with Bed Shaker
☐ Smoke Alarm with Strobe Light
☐ All-in-One Alerting System
☐ Other:_______________________________________________
Where to Purchase Devices Developed for People with a Hearing Loss

This is a partial list of commonly used mail order companies. You can call them to request a catalog be sent to your home or access their website. Since prices vary from company to company, you may want to compare prices among the vendors.

HARC MERCANTILE, LTD.
(Portage, MI)
1-800-445-9968 (Voice & TTY)
1-800-413-5248 (FAX)
Website: www.harcmercantile.com

HARRIS COMMUNICATIONS, INC.
(Eden Prairie, MN)
1-800-825-6758 (Voice)
1-800-825-9187 (TTY)
1-952-906-1099 (FAX)
Website: www.harriscomm.com
E-mail: mail@harriscomm.com

HEAR-MORE
(Farmingdale, NY)
1-800-881-4327 (Voice)
1-800-281-3555 (TTY)
1-631-752-0689 (FAX)
Website: www.HEARMORE.com
E-mail: sales@hearmore.com

HITEC GROUP INTERNATIONAL, INC.
(Burr Ridge, IL)
1-800-288-8303 (Voice)
1-800-536-8890 (TTY)
Website: www.hitec.com
E-mail: info@hitec.com

HS & S
(Northbrook, IL)
1-800-468-4789 (Voice)
1-866-317-8533 (TTY)
1-847-498-1482 (FAX)
Website: www.LSSproducts.com
E-mail: info@LSSproducts.com

NFSS COMMUNICATIONS
(Lake Villa, IL)
1-888/589-6670 (Voice & TTY)
1-847-265-8044 (FAX)
Website: www.nfss.com
E-mail: info@nfss.com

POTOMAC TECHNOLOGY
(Rockville, MD)
1-800-433-2838 (Voice & TTY)
Website: www.potomactech.com
E-mail: info@potomactech.com

SOUNDBYTES
(New York, NY)
1-888-816-8191 (Voice & TTY)
Website: www.soundbytes.com
E-mail: info@soundbytes.com

WEITBRECHT
(Santa Monica, CA)
1-800-233-9130 (Voice & TTY)
310-450-9918 (FAX)
Website: www.weitbrecht.com
E-mail: sales@weitbrecht.com
Clear Speech Workshop Handout

Clear Speech Questionnaire - Pre-Test

1. I am confident in my abilities to communicate with people with hearing loss.
   (Strongly Disagree) 1 2 3 4 5 (Strongly Agree)

2. I have enough techniques to satisfactorily communicate with people who have hearing loss.
   (Strongly Disagree) 1 2 3 4 5 (Strongly Agree)

3. I find communicating with people who have hearing loss to be stressful.
   (Strongly Disagree) 1 2 3 4 5 (Strongly Agree)
1. After this course, my confidence in working with patients with hearing loss has increased.

   (Strongly Disagree) 1 2 3 4 5 (Strongly Agree)

2. I have learned at least one technique that will help me communicate with people who have hearing loss.

   (Strongly Disagree) 1 2 3 4 5 (Strongly Agree)

3. After completing this course, I anticipate that my stress-level around interacting with people who have hearing loss will be decreased.

   (Strongly Disagree) 1 2 3 4 5 (Strongly Agree)

What I learned most about was:

What I would like to learn more about is:
The following was developed by Deaf and Hard of Hearing Services–Metro Office

For those of us who have a hearing loss, there are things we can do that may help us when we are having difficulty understanding a conversation. Even for those who wear hearing aids, use assistive listening devices or have a cochlear implant, these communication strategies are useful. The latest technology is wonderful, but it still doesn’t solve all the problems hard of hearing people encounter.

Here are some strategies that I have found helpful. You don’t have to use all of them, just the ones that work best for you:

1. Ask people to change how they talk to you. Be patient—you’ll probably have to remind them a few times (or many times!) to change how they talk with you. They’re not being mean; they just forget and go back to their old habits. Here are some examples of what you can ask:
   • “Could you please talk just a little slower?”
   • “Could you please talk a little louder? You don’t need to shout, but a little louder would help me a lot.”
   • “Could you please look at me when you’re talking? It helps me understand you a bit better.”

2. Don’t be afraid to ask for help.
   • “I won’t hear you if you just call my name, so could you please come over and tap me on the shoulder when the doctor is ready to see me?”
   • “It’s going to be tough hearing here in this large room; will you let me know when we’re talking about a new topic?”

3. Clarify what you’ve heard.
   • “Is that ‘B’ as in the word ‘butterfly’?”
   • “We’re going to meet at the front of the building at 10 AM on Wednesday, May 4th. Is that correct?”

4. Change what you can in the environment or move to another location.
   • “My, it’s noisy in here! Could we go out into the hallway so I can hear you better?”
   • “I’m having a hard time understanding what you’re saying with the radio playing. Would you be able to turn off the radio while we visit?”
   • “The sun is shining in my eyes, let’s move over here.”
   • “I’m having trouble hearing you with the dishwasher running—let’s take our coffee into the living room so I can hear you better.”

5. And finally, don’t be afraid to rely on paper and pencil.
   • “I don’t understand what you’re saying. Could you write that (word, number, name) down on this paper?”

Some final thoughts:
• Say “thank you” when someone makes it easier for you to understand what is being said—I guarantee you they will continue to try and make it easier for you to hear and understand them.
• Try not to bluff (or at least try not to do it ALL the time)—it usually lands you in trouble!
Minnesota Regional Deaf & Hard of Hearing Services (DHHS) Offices

DHHS—Northeast, Duluth
218-723-4962 (Voice)
888-234-1322 (Voice)
866-552-2692 (VP)
866-488-3833 (TTY)
E-mail: dhhs.duluth@state.mn.us

DHHS—Northeast, Virginia
218-748-2253 (Voice)
218-550-5153 (VP)
866-488-3997 (TTY)
E-mail: dhhs.virginia@state.mn.us

DHHS—Northwest, Moorhead
218-291-5880 (Voice)
800-456-7589 (Voice)
866-488-7390 (VP)
866-488-3829 (TTY)
E-mail: dhhs.moorhead@state.mn.us

DHHS—East & West Central, St. Cloud
320-255-3502 (Voice)
800-456-3690 (Voice)
866-588-2282 (VP)
866-488-3909 (TTY)
E-mail: dhhs.stcloud@state.mn.us

DHHS—Metro, St. Paul
651-431-5940 (Voice)
651-964-1514 (VP)
888-206-6513 (TTY)
E-mail: dhhs.metro@state.mn.us

DHHS—South, Mankato
507-389-1626 (Voice)
507-550-1262 (VP)
866-298-6566 (VP)
866-266-3779 (TTY)
E-mail: dhhs.mankato@state.mn.us

Web: www.dhhsd.org

This information is available in other forms to people with disabilities by calling
651-431-5940 (Voice)
888-206-6513 (TTY)
877-627-3848 (Speech-to-speech telephone re-voice services)
Hearing Loss Resources

Other Resources

**Minnesota Telephone Equipment Distribution (TED) Program**
651/431-5945 (Voice Phone)
800-657-3663 (Voice Phone)
888-206-6555 (TTY)
651-431-7587 (Fax)
Website: www.tedprogram.org

**American Academy of Audiology**
800-AAA-2336
703-790-8466
703-790-8631 (Fax)
Website: www.audiology.org

**American Speech-Language-Hearing Association (ASHA)**
800-638-8255 (Voice Phone/TTY)
Website: www.asha.org

**American Tinnitus Association**
800-638-8255 (Voice Phone/TTY)
Website: www.ata.org

**Dr. Mark Ross**
Website: www.hearingresearch.org/ross/

**Hearing Loss Association of America (formerly SHHH)**
301-657-2248 (Voice Phone)
301-657-2249 (TTY)
301-913-9413 (Fax)
Website: www.hearingloss.org

**Center for Hearing and Communication (formerly the League for the Hard of Hearing)**
917-305-7700 (Voice)
917-305-7999 (TTY)
917-305-7888 (Fax)
Website: www.chchearing.org

**AARP**
1-888-687-2277 (Voice Phone)
Website: http://www.aarp.org

In the search box type in: “hearing aids” or “hearing loss.”
With the aging population in the United States, there are more and more people with acquired hearing loss. It is estimated that the current number of people who are hard of hearing (28 million) will at least double by the Year 2030 to reach at least 56 million Americans.

**Checklist:**

- If your customers are allowed to use the phone, there is at least one amplified telephone that is hearing aid compatible.

- If your business/agency has a automated phone menu, you have a paper copy of what is said.

- If you have audiovisual materials that you share with your customers, the materials are closed-captioned or you have a script of the audio available.

- If you meet with your customers, you have an enclosed room that is free from background noises.

- You have minimized harsh lighting

- You avoid having employees who are speaking face-to-face with customers having their back to windows or bright lights.

- You have access to an assistive listening device (personal amplifier) that, if requested, a customer could use while conducting business in your facility.

- Staff has received either training or information about Clear Speech.
December 16, 2009

Dear Local Business Owners:

The West 7th Community Center has been a vital force in the West 7th neighborhood for over 35 years. Within the center, the Living at Home/Block Nurse Program has been helping seniors remain independent in their homes for over 20 years.

Recently, the West 7th Community Center’s Living at Home/Block Nurse program was awarded a grant that focuses on seniors who are hard of hearing. The goal of this project is to reach and improve the lives of elders and caregivers by providing or arranging services needed to help seniors dealing with hearing loss. One way to achieve this goal is to involve local businesses and places of worship, also vital forces in our neighborhood, in our efforts.

We will soon be purchasing a few small amplification systems for use in our center. Our hope is that by using this system, we can make sure participants who are hard of hearing are able to enjoy the many varied programs we make available to our community.

We would like to offer this system to area businesses and places of worship as well. For now, we are trying to get a sense of what the needs in the community are. We would greatly appreciate any feedback you have. Please fill out the survey below and return with the enclosed envelope.

Thank you for your time, we look forward to hearing from you!

Jeannie Farrell
Senior Activities Coordinator
Community Outreach Survey

Please return this survey in the self-addressed, stamped envelope that is enclosed. Thanks again for your time!

Organization/Business Name (Optional, unless requesting additional information):

Please Circle Yes, No, or N/A:

Do you work with persons who are hard of hearing? YES NO N/A

Do you have an amplification system in your facility? YES NO N/A

If yes, do you have personal assistive hearing technology for persons who are hard of hearing? YES NO N/A

What types of events are held at your facility? (Check all that apply)

___Banquets    ___Worship Services    ___Workshops

___Entertainment    ___Presentations    ___Classes

___Other (Please Specify)

Please Check All That Apply:

____ I am interested in learning more about renting an amplification system from the West 7th Community Center Living at Home/Block Nurse Program.

____ I am interested in learning more about renting personal assistive hearing technology from the West 7th Community Center Living at Home/Block Nurse Program

____ I am interested in learning more about my community’s Living at Home/Block Nurse Program.

In the space provided below, please let us know what your specific needs, if any, are.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
The Sound Effects peer connections group is a small group of people with hearing loss. This group is also for their caregivers, spouse, friend or significant other. The purpose of the group is to learn more about hearing loss, coping strategies, communication techniques, new technology, available resources and work toward positive changes. Group members will also be able to discuss problems and frustrations related to hearing loss as well as discoveries and successes in addressing hearing loss.

This group is for people 55 and over.

**Facilitators**

Mary Bauer  
Minnesota Department of Human Services—Deaf and Hard of Hearing Services

Maureen Davidson, cmc  
Director of Senior Services, West 7th Community Center
Peer Support Group Agenda

6 WEEK AGENDA ITEMS

Week 1
• Group rules
• Review structure of group.
  – Select Topic of the Day
  – Discussion of Topic
  – Problem Solving/Sound Effects—ideas and discussion on how to handle situations
• Have them bring their audiogram next week

Week 2
Set up room that isn’t hearing loss friendly
• Review Group rules
• Topic of the Day—Environment
• Discussion of topic
• Sound Effects—ideas and discussion on how to handle situations

Week 3
• Topic of the Day—Communication
• Discussion—Clear Speech
• Sound Effects—ideas and discussion on how to handle situations

Week 4
Topic—Technology
• Discussion of topic
• Sound Effects—ideas and discussion on how to handle situations

Week 5
Topic—Self-Care
• Discussion of Topic
• Sound Effects—ideas and discussion on how to handle situations

Week 6
Topic—Hearing Loss resources
• Discussion of Topic
• Sound Effects—ideas and discussion on how to handle situations
• Wrap-up of topics covered during the 6-week course