

July 2004

**Survey of Senior Hearing Aid Users**  
by Mayumi Taniguchi

As noted in the July/August 2004 issue of *Hearing Loss*, page 32, SHHH member Mayumi Taniguchi has completed a survey of people 65 years and older who use hearing aids. Here are her findings.

In the United States more than 20 million people have some level of hearing loss.<sup>1</sup> Their communication with families, friends, and co-workers is impaired and they often feel isolated. Some acquire hearing aids, improve their communication with others in the hearing society. However, hearing aids, though some are equipped with advanced and expensive technology, do not work well for some people. This paper reports the results of a survey of hearing aid users 65 years and older. The survey was conducted between October 2002 and June 2003 in nine retirement communities and senior centers in Fairfax County, Virginia and one senior center in Montgomery County, Maryland. Data were also collected at two movie theaters attended in Fairfax County, VA; from the members of the Northern Virginia Chapter (NOVA ONE) of the Self Help for Hard of Hearing People (SHHH); and from other individuals. The purpose of the survey was to find out how people cope with their hearing loss; to identify problems that hard of hearing people might have; and to identify problems that hard of hearing people might have.

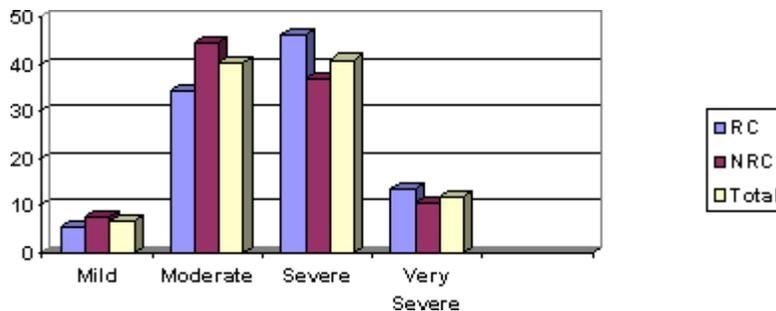
A total of 119 hearing aid users responded; both sexes approximately equally divided. Their average age was 80.7 years and their reported income of less than \$50,000. Of those respondents, 45 % lived in retirement communities (RC) and their average age was 82.4 years. The rest of the respondents (55%) were not living in retirement community (NRC) at the time of the survey. Their average age was 79.3. Those with the income of less than \$50,000 were much higher for RC than NRC (63% vs. 49%). The percentage of RC residents reported income of less than \$15,000, in contrast to 6% of NRC.

The respondents were asked to fill out a two-page questionnaire which was divided into four sections. The first section was fact finding, including the level of hearing loss, the number, type, and technology of hearing aids in use, the use of assistive devices and the total number of years of hearing aid use. In the second section respondents were asked to rate their satisfaction with hearing aids in various environments. The third section dealt with experience with hearing aid dispensers (audiologists/hearing instrument specialists), which included satisfaction rate, number of times the respondents had changed dispensers in the past, number of hearing aids after the purchase of new hearing aids, and group orientation. In the fourth section they were asked if their hearing had been affected by medical and weather conditions and also to comment on their feelings about their hearing loss and any other related issues.

RESULTS

**I. Fact findings**

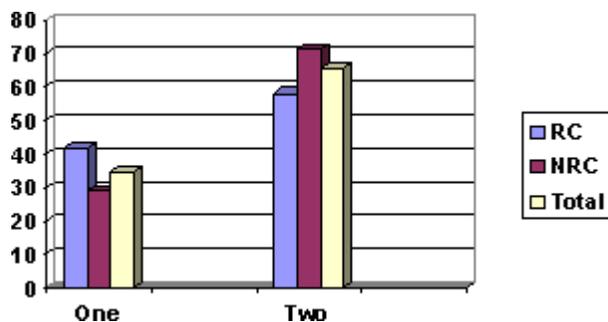
**The level of hearing loss:** Forty-one percent of all participants reported that they had severe hearing loss and 12% very severe hearing loss. Respondents who lived in retirement communities (RC) had more severe hearing loss than those who did not (NRC); 60% of RC had severe and very severe hearing losses combined versus 48% for NRC.



Graph 1 (%)

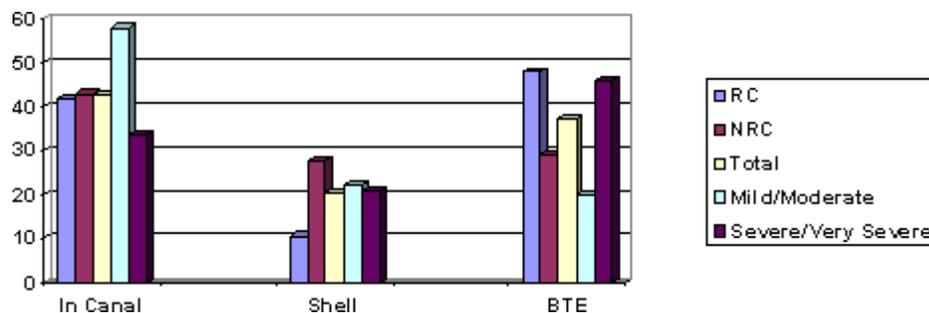
The number of hearing aids: Approximately two-third of the survey participants used two hearing aids. The number of two users was much higher for NRC than for RC (71% vs. 58%). There was no significant difference among the levels of hear

Graph 2 (%)



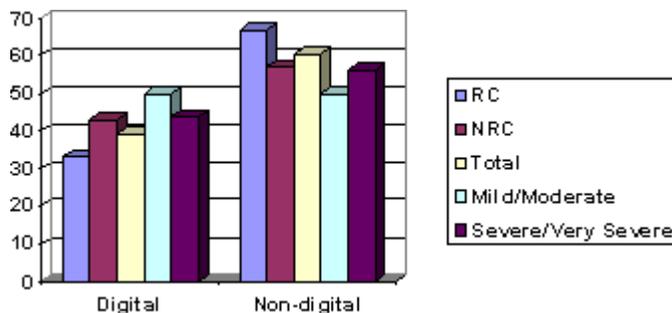
Type of hearing aids: Nearly half of RC wore “behind-the-ear” (BTE) in contrast to only 30% of NRC. Those with severe hearing loss used BTE more than other types, whereas those with mild/moderate hearing loss used more “in-the-canal” ty aids.

Graph 3 (%)



Technology of hearing aids: Twenty-three percent of the surveyed population did not respond to a question as to types of t used in their hearing aids. Probably this was not an important issue for them or they did not know how to respond. Of those 40% said that their hearing aids were digital. The ratio of digital hearing aid users was higher for NRC than for RC (43% v slightly higher among respondents with mild/moderate hearing loss than those with severe/very severe loss (50% vs. 44%); showed that high income people did not necessarily wear digital hearing aids. Forty percent of digital hearing aid users wlt to the income inquiry reported that their income was below \$50,000 and only 20% reported that their income was above \$ These figures, however, may not portray an accurate picture because of the lack of their knowledge of hearing aid technol

Graph 4 (%)



Use of hearing aids: Approximately two-thirds of those responding used hearing aids all the time and the rest as needed. P mild/moderate hearing loss used less than those with severe/very severe (53% vs. 77%). There was no significant differen RC and NRC groups.

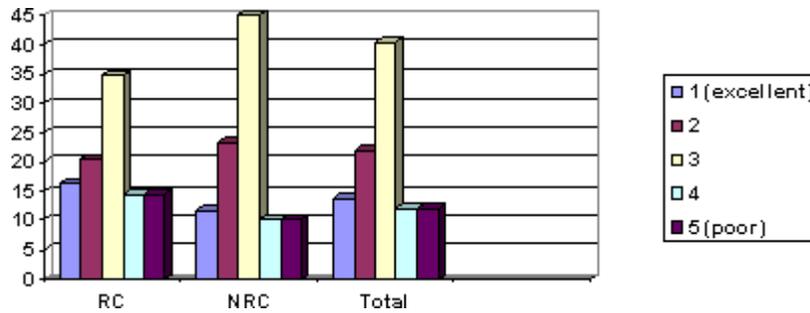
Use of assistive devices: Half of the surveyed population reported that they used one or more assistive device for radio/TV lecture, or other purposes. RC residents used devices slightly less of them than people in NRC.

Number of years in use: The average number of years of hearing aid use was 12.3 years. In spite of the fact that the hearin residents was more severe than NRC, the number of years of hearing aid use was 1.7 years less in RC than in NRC. Apprc 60% of RC had less than 10 years of use in contrast to 43% of NRC.

## II. Satisfaction levels of hearing aids

Overall satisfaction rate: On a scale of 1-5 with 1 for excellent and 5 for poor, 40% of the respondents rated 3. The mean 1 satisfaction was 2.9. The difference between RC residents and NRC was slight (mean: 3.0 vs. 2.9). There were also no si differences in satisfaction among people with different levels of hearing loss nor different lengths of hearing aid use. How were differences in satisfaction rates given by users of two hearing aids against one hearing aid. Users of two hearing aids satisfied than one hearing aid users (mean: 2.8 vs. 3.1). Those with severe/very severe hearing loss using one hearing aid v satisfied (mean: 3.2) and those with mild/moderate loss using two aids were the most satisfied (mean: 2.65).

Graph 5 (%)



Satisfaction rate in quiet environment: In a quiet one-on-one environment the mean score of satisfaction over all respondents and no difference was found between RC and NRC. Half of the total mild/moderate group rated 1 (excellent) in contrast to severe/very severe group. A noteworthy finding was that nearly 70% of the RC mild/moderate group reported “excellent” satisfaction rate of 1.7, while only 34% of the severe/very severe group rated “excellent” and its mean score was 2.0. As the people involved in a conversation increased, satisfaction rates decreased markedly. In a quiet environment with 2-5 people rated 3 (mean: 2.9), but with 6-10 people, one-third rated 5, poorest (mean: 3.4), and in a situation involving more than 10 57% of the respondents rated also the poorest (mean: 4.3). As to a situation with the use of microphones, one-third of those mild/moderate hearing loss rated 2 whereas 40% of those with severe/very severe hearing loss rated 3 (mean: 2.7 vs. 3.2).

Table 1 (satisfaction rate - means)

One-on-one	2-5 people	6-10 people	>10 people
1.9	2.9	3.4	4.3

Satisfaction rate in noisy environment: In a noisy environment, the satisfaction rate decreased. The mean score showed 2.8 on-one situation and when more than one person is involved, the satisfaction rate dropped to 3.6. Even those with mild/moderate their mean scored 2.7 in a one-on-one environment and 3.2 with more than one person in noisy environment.

Satisfaction rate of telephone use: The mean score of satisfaction rate for the use of telephone was 3.1. There was no significant difference between RC and NRC groups.

Satisfaction rate of T-coil use: Three-quarters of RC residents and two-thirds of NRC did not give rating for the use of T-coil former group was less satisfied than the latter (mean: 3.6 vs. 3.2).

### III. Experience with hearing aid dispensers

**Overall satisfaction rate:** Thirty-six percent of the respondents reported that their satisfaction rate for hearing aid dispensers was 1, (excellent), followed by 28% for the rating of 3. The overall mean level of satisfaction was 2.3. As for RC more than one-third rated excellent, while a quarter of them rated 4 and 5. The mean scores for RC and NRC were 2.5 and 2.2 respectively with mild/moderate hearing loss had slightly higher satisfaction with hearing aid dispensers than the other (mean: 2.3 vs.

Graph 6 (%)

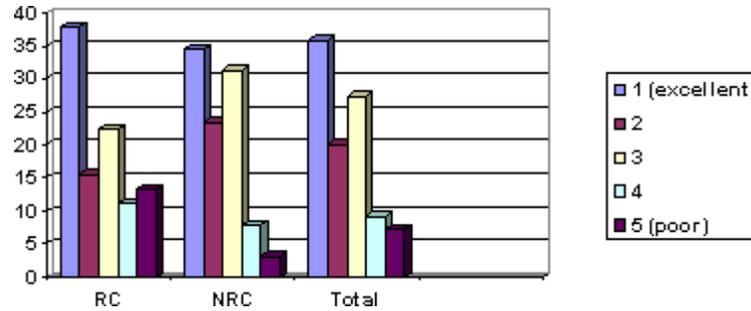


Table 2 (satisfaction rate - means)

Total	RC	NRC	Mild/ Moderate	Severe/ Very Severe
2.3	2.5	2.2	2.3	2.4

Change of hearing aid dispensers: The average number of times the respondents changed hearing aid dispensers was 1.6; mild/moderate hearing loss and twice for severe/very severe.

No correlation was found between the number of years of hearing aid use and the number of times the respondents had changed dispensers in the past.

Number of revisits: The average number of times returned to hearing aid dispensers within six months after the purchase of aids was 2.4. There was no significant difference between RC and NRC. However, a distinctive difference was found between hearing aid users and non-digital users. The former visited hearing aid dispensers 3.3 times versus 2 times for the latter.

Group orientation: Only 13% of the surveyed population responded that they received group orientation before and/or after purchase of their hearing aids.

**IV. Other**

Effects of physical conditions/medicine or humidity: Twenty-two percent responded that physical conditions/medicine affect hearing and

16% said humidity did. Those with severe/very severe hearing loss were more affected by their physical conditions than the less impaired persons.

**Participants’ comments on feelings about hearing loss and aids**

The participants were asked to comment on their feelings about their hearing loss. Seventy-six or 64% of the surveyed population responded to this request, but their responses were how they felt not only about their hearing loss, but also about their hearing aids. Therefore, the results reported here include both aspects of their feelings. Ten percent of the respondents expressed positive feelings about their hearing aids. Thirty-eight percent of them were resigned to the reality of their hearing loss as the fact of life associated with aging, 52% were negative. Particularly the RC residents were most negative.

The followings are some of their comments:

Positive

“Appreciate what aids have done.”

“I feel fortunate that I have hearing aids that help me very much.”

“Very satisfied.”

#### Resigned

“It comes with aging. It is not a disease. The doctor doesn’t know. We don’t know, so cannot be bitter about it.”

“Regret, but that appears to be part of age-related failings as the body ages.”

“Had accepted. Hope the other ear doesn’t go.”

“It’s a fact of life which I’ve learned to live with. In addition, there are times when it’s a blessing to turn them off!”

#### Negative/very negative

“I hate it!”, “Very unhappy”, “Despair”, “Disgusted”, “Lesser of many evils.”

#### Participants’ comments on problems associated with hearing aids

The survey participants were also asked to describe problems with their hearing aids. Nineteen RC residents and 16 others responded. Slightly over one-third of RC and a quarter of NRC reported fitting problems. Some of their responses were:

“They slide out of the canal and squeal.”

“When using the aids and using the phone, the beeping as I [am] trying to speak is a trick. No one can [come] close face to face: as hugging you. The BEEP can kill you!”

“My ear canals change shape with eating & socializing causing feedback (squeaking) making it necessary to lower the output of hearing aids below desired levels.”

“The method of producing the ear molds is not precise and wearers must accept ear molds not perfectly matched to their ear canals.”

In contrast to these responses that were all from RC residents, none of NRC responses were so expressive. They simply stated “fitting” or “don’t fit.” Complaints about telephone use were also from RC, none from NRC. Cost of batteries and high cost aids were also their concerns. One RC resident reported that having no noise barriers in a dining room was a problem, and

pointed out lack of orientation, support, and communication from hearing aid dispensers. Also there were requests for finding listening devices and therapy for improving communication with hearing persons.

## DISCUSSION

### Are hearing aids enough to help hard of hearing people?

The survey results clearly indicate that hearing aids alone do not provide sufficient help to hearing impaired people. Overall satisfaction rate of their hearing aids showed 2.9 in the scale of 1 to 5 with 1 for excellent. In both quiet and noisy environments more people engaged in conversation, the more difficult their communication became. Contrary to Stika's report our surveys show that the longer people wore hearing aids, the more satisfied they had become.<sup>2</sup> Compared retirement community residents with others (NRC), RC was less satisfied with their hearing aids than NRC. In spite of the fact that RC had more severe hearing than NRC, fewer RC residents used two hearing aids. The number of years of hearing aid use was also less for RC. T-coil used by RC than NRC.

While taking a survey my use of a personal amplifier equipment (pocket-talker) drew an attention. Although half of the survey population used at least one assistive device, their knowledge of the use of various devices now available in the market is limited. Their availability should be provided more widely to hard of hearing people. The survey taken at the 1999 SHHH International Convention in New Orleans, Louisiana also revealed that consumers needed to be informed more about assistive listening devices, T-coils.<sup>3</sup> Those devices may be sufficient to enhance their quality of life. The cost of these devices is much less than that of hearing aids and some users of devices may find it more satisfying than the use of hearing aids. For those who are considering acquiring a device, but do not know what is the best for them, demonstration service of equipment is very helpful.<sup>4</sup> Such services have been made by some local libraries and hearing health centers or resource centers. One good example is the Northern Virginia Center for Deaf and Hard of Hearing Persons. The Center, which is part of a network of loan sites of the Virginia Dept. of Health and Hard of Hearing, not only provides information about assistive listening devices but also lends some of equipment without fee scale.<sup>5</sup> To improve accessibility of hearing assistive technology, SHHH and Gallaudet University Rehabilitation Engineering Research Center on Hearing Enhancement have been training SHHH members to help improve access to the technology.<sup>6</sup> SHHH just recently announced the establishment of the National Information and Training Center for Hearing Assistive Technology (HAT) to serve as "a key resource on assistive technology for consumers with hearing loss, professionals concerned about hearing loss, access, and others".<sup>8</sup> This is welcome news for hard of hearing people. It is certain that all these efforts will help these people cope with their disability.

### Satisfied with hearing health care?

A little over one-third of respondents reported that their satisfaction rate for hearing aid dispensers (HAD) was excellent, but the satisfaction rate was 2.3. The average number of visits by the respondents to HAD was 2.4 times with the time limit of six months after obtaining a hearing aid, while Carren J. Stika's study without time limit reported slightly more than 4 times.<sup>2</sup> The survey also revealed that digital hearing aid users required more visits (3.3 times). This result is consistent with the known fact that programming options to work through as for digital hearing aids, more visits to HAD are required. Complaints of the cost of hearing aids and batteries came from both RC and NRC groups. RC residents were less satisfied with HAD than NRC and complaints about fitted hearing aids came strongly from RC. It appears that RC needs more attentive care from hearing aid dispensers.

The last, but not the least important finding, is a lack of sufficient information services to hearing aid purchasers. In our survey 13% responded that they received a group hearing orientation. The SHHH recognized the importance of group hearing aid orientation and issued the position paper in 1996.<sup>9</sup> It is difficult for hearing impaired persons to accept the reality of their hearing loss and hearing aid users may expect too much from their instruments. This should be clearly explained before purchase of hearing aids. People do not necessarily retain all the information provided by HAD. Therefore, there is a more reason for the need of group hearing orientation and more extensive follow-up procedures for review and reinforcement.<sup>2</sup> They need all the help available to their hearing health care providers. Although the majority of hearing aid dispensers strive to provide the best service to their clients,

information needs, the SHHH position paper points out that “there are inherent limitations in the effectiveness of the one-to-one dispenser-client relationship” and emphasizes the benefits of group orientation.<sup>9</sup> Stika’s previously quoted paper gives a new insight into the reality of this issue.<sup>2</sup> Among various pieces of information given to hearing aid purchasers, her finding shows emphasis was heavily placed on the information related to hearing aids themselves such as their care, batteries, and earmolds and less emphasis on T-coil, directional microphones or other assistive technology, communication strategies, support group participation in group orientation. As stated earlier, hearing impaired persons may need some assistive listening devices, not necessarily hearing aids. The reality of the hearing aid industry is that when a hearing impaired person visits a hearing aid dispenser the latter may recommend to the client a hearing aid not necessarily best for the client’s need. Apparently it has been the hearing aid industry to give dispensers some incentives to sell a specific aid. Mark Ross questions “How does a hearing aid dispenser reconcile one’s personal needs with a client’s best interest?”<sup>10</sup>

## CONCLUSION

For anyone who was once a hearing person, but lost hearing during the course of one’s life, hearing loss is a particularly devastating experience that has an impact on every aspect of one’s life ranging from personal relationships to cultural and occupational domains. As evident in some of the responses given in the survey, many hard of hearing seniors resign themselves to the reality of hearing loss or find it difficult to accept their hearing loss. They do not get sufficient satisfaction from hearing aids and seek other helps they need or wish to have. From this survey it has become clear that we could help improve the quality of their remaining life in the following areas:

1. Dissemination of information and providing demonstration service of assistive listening devices/technology
2. Improvement in providing information about availability of group/follow-up orientation, support groups, classes or communication strategies, state and local support agencies, etc.
3. Providing more attentive hearing health care to retirement community residents
4. More availability of financial assistance towards purchase of hearing aids and assistive listening devices
5. Providing facilities friendly to hard of hearing people in the retirement community
6. Free or more liberal distribution of batteries
7. Training hearing aid dispensers to be more aware of the needs and welfare of senior hearing aid users.

Merely providing hearing tests and hearing aids is not enough to those who experience communication breakdown which affects one’s quality of life and feelings of well-being. Heine and Browning emphasize the importance of rehabilitation programs that involve multidisciplinary team work involving psychologists and social workers.<sup>11</sup> Such a multi-disciplinary approach is much needed, particularly for senior hearing impaired citizens.

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#### **ACKNOWLEDGEMENT**

My special appreciation goes to survey respondents and officials at the retirement communities, senior centers, and movie listed below; and to NOVA ONE members, and other individuals who participated in the survey. I am deeply indebted to who accompanied me to all locations where the surveys were taken and helped in tabulating statistical data. Her encourage the initial support from her personal contacts, Leon Smith and Cheryl Rice were invaluable. My gratitude is also extended Moore, Dick Pelkay, Rick Read, and Jean Vogel who lent a helping hand in collecting questionnaires. Comments and suggestions made by Joan Mavity to the final draft were extremely helpful. I am most grateful to Sandy Morgan who reviewed the paper its publication possible.

List of the places where the surveys were taken:

Fairfax County, Virginia

Forest Glen at Sully Station, Centreville (Patrick Leonard, Community Director)

Greenspring Village, Springfield (Karla W. Hibbs, Community Resource Manager)

Heatherwood Retirement, Burke (Dolores Orlando, Director)

Hunter Woods Fellowship House, Reston (Kate Aubert, Social Worker)

Lewinsville Senior Center, McLean (Ruth Tait, Director)

Little River Glen, Fairfax (Ruth Junkin, Director)

Morris Glen Apartments, Alexandria (Leslie Hill, Resident Manager)

Mount Vernon House, Alexandria (Kathy Cole, Service Coordinator)

Reston Town Center Multiplex Cinemas (Theresa Stewart, Manager)

Senior Health and Services Fair, coordinated by Kathleen Kelly,

Service Coordinator (Lockwood House/Elmwood House, Arlington) and

held at Evergreen House, Annandale (Phillys Byrne, Project Manager), June 11, 2003.

Springfield Mall Cinema 10 (Leticia Click, Assistant Manger of Marketing, Springfield Mall) Montgomery County, Mary

Holiday Park Senior Center, Wheaton,

### **PERSONAL NOTE**

After 18 years with the life of wearing hearing aids, I finally have come to terms with my hearing loss. It has been a long j now accept my own and others' cracked voice, unfamiliar bird chirping, and the meaningless cacophony of melody. Once beautiful melody came to my ears from nowhere. How long ago was it when I heard music in perfect harmony? I was over joy. Tears were running down my cheeks thinking that my daily prayer was finally answered, but realizing that it was just heart sank into deep sadness. Yes, acceptance of the reality did not come easily to me. I treasure the beautiful experience i I am at peace now with my hearing loss and am truly thankful for the residual hearing I still have. At most I am grateful to friends, and hearing aid dispensers who have been patient with my disability and have given me any assistance I have need and function in this hearing society. I recently began to go to concerts again. All once familiar music scores are entirely ne I enjoy the rhythm and vibrations that come to my ears and touch my heart. It is an entirely new world that I had never kn The world is still beautiful and bright.

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Mayumi Taniguchi has had moderate to severe hearing loss for the past eighteen years. She lives in McLean, Virginia, and member of SHHH NOVA ONE (VA) Chapter. She holds a master's degree in library science from the University of Mich the time of her retirement she was a supervisory librarian in the Office of Collection Services, Library of Congress. She m contacted at: [cypressha@aol.com](mailto:cypressha@aol.com).

Last Update: 07/13/04