Summary

JapanTrak 2012

1. Introduction
2. Market overview
3. Analysis of hearing aid owners
4. Analysis of hearing impaired non-owners
Summary

1. Introduction

- JapanTrak 2012 was designed and executed by Anovum (Zurich) on behalf of Japan Hearing Instruments Manufacturers Association (JHIMA).

- Sample sizes Japan 2012:
  - Representative sample (sample 1): n=15’036 people
  - Hearing impaired (sample 2): n=1’348 people
    - Hearing impaired non-owners: n=898 people with hearing loss (HL)
    - Hearing aid owners: n= 450 people with hearing aid (HA)

- JapanTrak 2012 is equivalent to the EuroTrak studies:
Summary

2. Market overview

- **Stated hearing loss prevalence**
  - Total: 10.9% (18+: 12.8%).
  - Binaural hearing loss: Hearing aid (HA) owners: 76%, HA non-owners: 60%.
  - Tinnitus prevalence 30% (self stated, sometimes or permanently).
  - Hearing Tests: 49% had a hearing test in the last 5 years.

- **Hearing aid adoption rate (HA penetration)**
  - Total: 14.1%.
  - Total age group 18+: 14.1%.

- **The route to the hearing aid**
  - 40% of the hearing impaired discussed hearing loss with an ENT doctor or family doctor.
  - Only 13% got hearing aids recommended from the ENT or family doctor (drop out rate = 67%).
  - 51% of GP consultations recommended no further action.
  - 66% of ENT consultations recommended no further action.
  - 96% of Audiologist consultations recommended to get a hearing aid.

- **Potential social cost-savings due to the use of hearing aids**
  - Hearing aids are believed to have a positive impact on the job.
  - People with hearing aids tend to have a higher personal income.
  - Hearing aid owners have a lower risk of being depressed and a lower risk of being forgetful compared to impaired non-owners.
Summary
3. Analysis of hearing aid owners

- **Hearing aid ownership and usage**
  - 12% received some kind of 3rd party reimbursement from the government.
  - 59% of the currently owned HAs were fitted in 2009 or later.
  - The average age of the currently owned HAs is 3.5 years.
  - The median age of hearing aids before replacement is 4 years.
  - On average, HAs are worn 5.7 hours a day.
  - Only about one out of ten hearing aid owners uses wireless technology. 62% of hearing aid owners have never heard of wireless technology in connection with hearing aids. Only 17% of the older (65y+) rate wireless technology as very important but 30% of the younger (up to 44y).

- **Satisfaction with HAs**
  - 36% of the hearing aid owners are satisfied with their hearing aids.
  - The more hours worn per day, the higher the satisfaction.
  - Satisfaction with Has purchased 2010 or after is higher than with Has purchased before.

- **Positive impact of HAs**
  - Significant positive impact of HAs on different aspects – especially sense of safety, communication effectiveness and feelings about yourself have improved.
Summary

4. Analysis of hearing impaired non-owners

• Reasons for not having / using hearing aids
  – 94% of non-owners do not know the system of supplying hearing aids by government.
  – The main reasons for not using hearing aids are that people say they are uncomfortable, they hear well enough and that hearing aids do not restore hearing to normal.
  – 12% who own hearing aid(s) don’t use them at all; 29% use them less than one hour/day. Main reasons for this are: “They are uncomfortable”, “They do not work well in noisy situations”, “I have tried hearing aids and they do not work”, “They do not restore hearing to normal”.

• Negative impact of hearing loss and buying intentions
  – Compared to impaired hearing aid non-owners with significant hearing loss (Top 50% hearing loss-group), hearing aid owners feel less exhausted in the evenings.
  – 4% of non-owners intend to get a hearing aid within the next year.
  – The most important influencing factors to get hearing aids are worsening hearing loss, ENT and significant others plus GP for the non-owners.

• Additional JapanTrak questions
  – 18% of HA owners purchased the hearing aid in an optical shop; 14% by mail order or online.
  – 58% of HA owners have ITE hearing aid(s).
  – People with hearing aids: About 5 years have passed since they became aware of the hearing loss until they got a hearing aid.
  – Half of the people with hearing loss are aware of any hearing aid shop in the area where they live.
  – 16% of the hearing impaired know the expression “Nintei - Hocyouki - Ginou – Sha”.
  – 24% of the hearing impaired know the expression “Nintei - Hocyouki - Senmon - Ten”
Results

JapanTrak 2012

1. Introduction
2. Market overview
3. Analysis of hearing aid owners
4. Analysis of hearing impaired non-owners
5. Additional Japanese questions
Detailed Results: Roadmap

1. Introduction
   - Objectives and organisation
   - Field research specification

2. Market overview
   - Prevalence of hearing loss and hearing aid adoption rate
   - Hearing tests and prevalence of tinnitus
   - The route to the hearing aid: Drop-out rates and reasons for drop-outs
   - Potential social cost-savings due to the use of hearing aids: Work competitiveness, depressive and dementia symptoms

3. Analysis of hearing aid owners
   - Hearing aid ownership, lifetime and usage
   - Awareness and importance of wireless technology
   - Satisfaction with hearing aids and drivers
   - Positive impact of hearing aids

4. Analysis of hearing impaired non-owners
   - Reasons for not having a hearing aid
   - Negative impact of hearing loss
   - Buying intentions

5. Additional JapanTrak questions

6. Appendix
   - Demographics: Hearing instrument adoption rates and populations
1. Introduction
Objectives and organization
Organisation of JapanTrak 2012

Organisation

- JapanTrak is the Japanese equivalent to the EuroTrak studies.
- Anovum Zurich developed the concept, designed the questionnaire and conducted the fieldwork in cooperation with a panel company. Furthermore Anovum analysed the data and prepared the presentation.
- The European Hearing Instrument Manufacturers Association [EHIMA] approved the EuroTrak questionnaire in cooperation with Sergei Kochkin, Ph.D., Executive Director, Better Hearing Institute USA.
- Principal of the project JapanTrak is Japan Hearing Instruments Manufacturers Association (JHIMA). Members of JHIMA are: bernafon, CORTITON, GNresound, NJH (New Japan Hearing), Oticon, PANASONIC, Phonak, RION, Siemens, Starkey, Widex [JHIMA Companies].
- Anovum and JHIMA adapted the EuroTrak questionnaire for JapanTrak. JHIMA translated the questionnaire into Japanese.

Use of the data

- The principal as well as the JHIMA companies may use the anonymous delivered tables, charts, reports and conclusions of the survey for further research projects, for archiving and publication in any form whatsoever.

- The raw dataset remains at Anovum. If the principal or the JHIMA companies use the anonymous data (delivered tables, charts, reports) and conclusions of the survey for publications the source of the data needs to be mentioned in the following way:
  
  "Source: Anovum – JapanTrak 2012/n=[relevant sample size]"

- The principal and JHIMA companies can ask Anovum to further analyse the raw data in specific ways at their own expense.
Field research specification
Recruitment process: In search of hearing impaired people

**Step 1: Screening interviews**

Objective: Prevalence of hearing loss and hearing aid ownership

Process:
1. Representative sample with strict quotas that represent the overall population (Age/Gender interlocked; soft quota on region)
2. Contacts from a panellist pool of more than 100’000 people
3. Screening questionnaire: Stated hearing loss and hearing aid usage + demographics
4. Result: Representative sample of \( n=15'036 \) people based on census data.

**Step 2: Target population interviews**

Objective: Details about satisfaction with hearing aids and reasons for non-adoption

Process:
1. Main questionnaires: Owners and hearing impaired non-owners
2. Balancing through weighting according to representative screening interviews
3. Resulting sample: \( n=450 \) hearing aid owners and \( n=898 \) hearing impaired non-owners
2. Market overview
Prevalence of hearing loss and adoption rate
Hearing loss and hearing instrument ownership by gender/age
Hearing loss prevalence Japan 2012

% hearing loss prevalence

- Total: 10.9%
- Total 18+: 12.8%
- 74+: 43.7%
- 65-74: 18.0%
- 55-64: 10.8%
- 45-54: 6.6%
- 35-44: 3.6%
- 25-34: 2.6%
- 15-24: 3.5%
- <=14: 0.6%

Base: 15'036

JapanTrak 2012

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Hearing aid adoption rate Japan 2012
14.1% of hearing impaired have hearing aid(s)

% of hearing impaired

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total 18+</td>
<td>14.1%</td>
</tr>
<tr>
<td>65+</td>
<td>17.1%</td>
</tr>
<tr>
<td>45-64</td>
<td>6.3%</td>
</tr>
<tr>
<td>&lt;=44</td>
<td>11.5%</td>
</tr>
</tbody>
</table>

JapanTrak 2012
Base: 1’860

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The more severe the hearing loss, the higher the adoption rate

* Construction of 6-groups: A factor analysis was performed to identify one factor "degree of hearing loss". The following questions were included in the factor:
  * Number of ears impaired (one or two)
  * Stated hearing loss (Mild to Profound)
  * Scores on 6 APHAB-EC – like questions (Scaled 1-5)
  * When NOT using a hearing aid, how difficult is it for you to follow conversations in the presence of noise

* People were segmented into 6 groups of same size (16.67% of all hearing impaired in the sample).
Hearing loss characteristics: Owners compared to non-owners

<table>
<thead>
<tr>
<th></th>
<th>HA-Non-owner n=898</th>
<th>HA Owner n= 450</th>
<th>Hearing Aid Adoption (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ears impaired</strong> (stated)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unilateral loss</td>
<td>40%</td>
<td>24%</td>
<td>11%</td>
</tr>
<tr>
<td>Bilateral loss</td>
<td>60%</td>
<td>76%</td>
<td>21%</td>
</tr>
<tr>
<td><strong>Perceived loss</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mild</td>
<td>35%</td>
<td>17%</td>
<td>8%</td>
</tr>
<tr>
<td>Moderate</td>
<td>60%</td>
<td>56%</td>
<td>14%</td>
</tr>
<tr>
<td>Severe</td>
<td>4%</td>
<td>24%</td>
<td>47%*</td>
</tr>
<tr>
<td>Profound</td>
<td>2%</td>
<td>3%</td>
<td></td>
</tr>
</tbody>
</table>

n’s are unweighted whereas the shown results are weighted.
* combined "severe" and "profound" because n is too small.
Overview hearing loss prevalence and hearing aid adoption

Japan Trak 2012

- Hearing impaired (stated)
- Adoption (% of population)
- Adoption (% of stated impaired)
Hearing tests and prevalence of tinnitus
37% state their hearing has never been tested

- Yes, in the last 12 months: 31%
- Yes, in the last 1-5 years: 18%
- Yes, more than 5 years ago: 14%
- No, never: 37%

Base = 9'897
Prevalence of tinnitus

Do you have tinnitus (ringing or other noises in the ears or head) in one or both ears?

- No: 0%
- Yes, sometimes: 10%
- Yes permanently in both ears: 20%
- Yes permanently in one ear: 30%
- Base: 4'163

Have you ever thought about a treatment of your tinnitus?

- I have / have had a treatment: 4%
- I considered, but did not have treatment: 14%
- I have never considered a treatment: 81%
- Permanently Tinnitus: 31%
- Sometimes Tinnitus: 27%
- No Tinnitus: 42%

Base: 4'163
The route to the hearing aid: Drop-out rates and reasons for drop-outs
The route to the hearing aid: Overview

Base: n=1'348
Much higher drop-out-rates for the lower hearing loss segments

Top 50% hearing loss*

Low 50% hearing loss*

* Construction of 6-groups: A factor analysis was performed to identify one factor "degree of hearing loss". The following questions were included in the factor:

- Number of ears impaired (one or two)
- Stated hearing loss (Mild to Profound)
- Scores on 6 APHAB-EC – like questions (Scaled 1-5)
- When NOT using a hearing aid, how difficult is it for you to follow conversations in the presence of noise

People were segmented into 6 groups of same size (16.67% of all hearing impaired in the sample).

Base: n=1'348
### Recommendations by profession

<table>
<thead>
<tr>
<th>Profession</th>
<th>Referred to an ear doctor (ENT)</th>
<th>Referred to a hearing aid dispenser / audiologist</th>
<th>Recommended to get a hearing aid</th>
<th>Recommended no further action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GP (N=472)</strong></td>
<td>11%</td>
<td>19%</td>
<td>20%</td>
<td>51%</td>
</tr>
<tr>
<td><strong>ENT (N=540)</strong></td>
<td>12%</td>
<td>22%</td>
<td>66%</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Audiologist (N=343)</strong></td>
<td>96%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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The route to the hearing aid: GP/Family doctor
Have you discussed your hearing problem with your family doctor?

% Discussed with GP

- Total hearing impaired: 30%
- HA owner: 59%
- Hearing impaired non-owners: 25%

What did he/she recommend?

**HA owner (Base: 249)**
- Recommended no further action: 10%
- Recommended to get a hearing aid: 57%
- Referred to an ear doctor (ENT): 21%
- Referred to a hearing aid dispenser / audiologist: 30%

**Impaired non-owner (Base: 223)**
- Recommended no further action: 66%
- Recommended to get a hearing aid: 18%
- Referred to an ear doctor (ENT): 6%
- Referred to a hearing aid dispenser / audiologist: 4%
The route to the hearing aid: ENT
Have you discussed your hearing problem with an ear doctor (ENT)?

% Discussed with ENT

- Total hearing impaired: 34%
- HA owner: 69%
- Impaired non-owners: 29%

What did he/she recommend?

HA owner (Base: 284)
- Did prescribe a hearing aid: 59%
- Referred to a hearing aid dispenser / audiologist: 30%
- Recommended no further action: 16%

Impaired non-owner (Base: 256)
- Did prescribe a hearing aid: 8%
- Referred to a hearing aid dispenser / audiologist: 5%
- Recommended no further action: 86%
The route to the hearing aid: Audiologist
Have you discussed your hearing problem with a Hearing Aid Dispenser/Audiologist?

% Discussed with Audiologist

- Total hearing impaired: 15%
- HA owner: 74%
- Hearing impaired non-owners: 5%

What did he/she recommend?

- HA owner (Base: 303)
  - Recommended to get a hearing aid: 98%
  - Recommended not to get a hearing aid: 2%

- Impaired non-owner (Base: 40)
  - Recommended to get a hearing aid: 91%
  - Recommended not to get a hearing aid: 9%
Potential social cost-savings due to the use of hearing aids: Work competitiveness, depressive and dementia symptoms
Work competitiveness:
88% of the working hearing aid owners state their hearing aid(s) are useful on their job.

How useful are your hearing aids on your job?

- 46% Of significant use
- 42% Of some use
- 12% Of no use

Base: N=143
Work competitiveness:
34% of people with hearing aid tend to think they receive a better compensation for their jobs than their peers

Compared to your peers of equal age, education and skill how would you rate the compensation that you receive for the job you perform?
Base: Employed (full/part time)

Base N = 361
Work competitiveness:
People with hearing aid(s) tend to have a higher personal income compared to impaired non-owners

Personal income
Base: Employed (full/part time)

- Under 2,000,000 yen
- 2,000,001 - 3,000,000 yen
- 3,000,001 - 4,000,000 yen
- 4,000,001 - 5,000,000 yen
- 5,000,001 - 6,000,000 yen
- 6,000,001 - 7,000,000 yen
- 7,000,001 - 8,000,000 yen
- 8,000,001 - 9,000,000 yen
- 9,000,001 - 10,000,000 yen
- 10,000,001 - 20,000,000 yen
- 20,000,001 - 30,000,000 yen
- More than 30,000,000 yen
- Prefer not to say

Base N = 519
Work competitiveness:
People with hearing aids recognize that hearing aids increase the chance of hearing impaired to get promoted, to get the right job and to get more salary.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Hearing Aid</th>
<th>Hearing Loss, No Hearing Aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think that people with an untreated hearing loss tend to be less promoted in their job</td>
<td>7% 13% 39% 25% 16%</td>
<td>25% 14% 40% 15% 7%</td>
</tr>
<tr>
<td>I think that people with an untreated hearing loss tend not to get the job they deserve</td>
<td>7% 12% 40% 25% 16%</td>
<td>23% 13% 43% 15% 5%</td>
</tr>
<tr>
<td>I think that people with an untreated hearing loss tend to be under salaried</td>
<td>7% 12% 58% 15% 8%</td>
<td>25% 14% 48% 10% 3%</td>
</tr>
</tbody>
</table>

Base: Hearing loss, no hearing aid = 796/ hearing aid n = 403

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Health problems:
Hearing aid owners have a lower risk of being depressed (PHQ-2 Screening) and a lower risk of being forgetful compared to impaired non-owners with comparable hearing loss (Top50% hearing loss group*)

Depression symptoms:
PHQ-2 Screening:
In the last 2 weeks:
- Little interest or pleasure
- Feeling down, depressed, hopeless

<table>
<thead>
<tr>
<th></th>
<th>Hearing aid</th>
<th>Top 50% hearing loss, no hearing aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>14%</td>
<td>27%</td>
</tr>
<tr>
<td>No depression</td>
<td>86%</td>
<td>73%</td>
</tr>
</tbody>
</table>

Dementia symptom:
Getting more forgetful in the last year?

<table>
<thead>
<tr>
<th></th>
<th>Hearing aid</th>
<th>Top 50% hearing loss, no hearing aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, much more</td>
<td>15%</td>
<td>19%</td>
</tr>
<tr>
<td>Yes, somewhat more</td>
<td>59%</td>
<td>61%</td>
</tr>
<tr>
<td>No</td>
<td>27%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Base: hearing aid n=326 / no hearing aid =123

*Construction of 6-groups: A factor analysis was performed to identify one factor “degree of hearing loss”. The following questions were included in the factor:
- Number of ears impaired (one or two)
- Stated hearing loss (Mild to Profound)
- Scores on 6 APHAB-EC – like questions (Scaled 1-5)
- When NOT using a hearing aid, how difficult is it for you to follow conversations in the presence of noise

People were segmented into 6 groups of same size (16.67% of all hearing impaired in the sample).
3. Analysis of hearing aid owners
Hearing aid ownership, lifetime and usage
Low adoption rates within mild and moderate hearing loss

<table>
<thead>
<tr>
<th>Stated hearing loss</th>
<th>(% of impaired population*)</th>
<th>Adoption rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profound</td>
<td>(2%)</td>
<td>47%*</td>
</tr>
<tr>
<td>Severe</td>
<td>(7%)</td>
<td>14%</td>
</tr>
<tr>
<td>Moderate</td>
<td>(59%)</td>
<td></td>
</tr>
<tr>
<td>Mild</td>
<td>(32%)</td>
<td></td>
</tr>
</tbody>
</table>

Base: n=1'348
Sums can differ from 100% due to rounding
* combined "severe" and "profound" because n is too small
59% of the currently owned hearing aids were bought in 2009 or later

**Age of currently owned HAs (Mean):**

2012: 3.5 years

HA-owner, n=450
51% are first time hearing aid users – non first time users kept their hearing aids for 5 years on average

Current HAs = first HAs?

- Yes: 49%
- No: 51%

How many years did you own your previous HAs?

- 1-3 years: 41%
- 4-6 years: 35%
- 7-10 years: 15%
- 11 years or longer: 9%

Age of HA before it has been replaced:
2012: 4 years (median)

HA-owner, n=450

Base: n=197
Binaural treatment by purchase date

% ownership of binaural hearing aids / Base=All owners

- 2012/2011 (n=117): 39%
- 2010/2009 (n=117): 36%
- 2009 or earlier (n=180): 38%
12% received some kind of reimbursement from the government. Information deficit non-owners: Only 6% know whether government would pay.

**Owners:** Was any part or all of your hearing aid(s) paid by the government?

- Yes: 7%
- No: 81%
- Don't know: 12%

**Non-owners:** Do you know the system of supplying hearing aid(s) by government?

- Yes: 6%
- No: 94%

HA-owner, n=450

HA-non-owners, n=898
On average, hearing aids are worn 5.7 hours a day

HA-worn: Mean: 5.7 hours/day

HA-owner, n=450
77% of the currently owned hearing aids either had no repair need or only once.

How often has your current hearing aid required a repair because it was not working properly?

- Never: 66%
- Once: 11%
- 2-3 times: 15%
- 4-5 times: 5%
- More often: 3%

HA-owner, n=450
Awareness and importance of wireless technology
Only one out of ten hearing aid owners uses wireless technology

### Wireless Technology

<table>
<thead>
<tr>
<th>Question</th>
<th>All HA owners (n=450)</th>
<th>Up to 44 y.o. (n=45)</th>
<th>45-64 y.o. (n=143)</th>
<th>65+ y.o. (n=262)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you ever heard of wireless technology in connection with hearing aids?</td>
<td>9% 29% 62%</td>
<td>22% 45% 34%</td>
<td>11% 38% 51%</td>
<td>7% 27% 66%</td>
</tr>
<tr>
<td>Importance of wireless technology in connection with hearing aids?</td>
<td>19% 34% 37% 9%</td>
<td>30% 31% 27% 11%</td>
<td>27% 37% 30% 6%</td>
<td>17% 34% 39% 9%</td>
</tr>
</tbody>
</table>

- **Yes, I use wireless technology on my hearing aids**
- **Yes, I have heard of it but don't use it**
- **No, I have never heard of wireless technology in connection with HAs**

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Satisfaction with hearing aids and drivers
Overall satisfaction with hearing aids: Highest satisfaction for the following groups: BTEs, purchased 2010 or after, worn more than 8 hrs/day

- Total HA-user (n=450)
  - Very dissatisfied: 5
  - Dissatisfied: 12
  - Somewhat dissatisfied: 20
  - Neutral: 27
  - Somewhat satisfied: 21
  - Satisfied: 14
  - Very satisfied: 1
  - % Satisfied: 36%

- BTE (n=162)
  - Very dissatisfied: 2
  - Dissatisfied: 10
  - Somewhat dissatisfied: 20
  - Neutral: 22
  - Somewhat satisfied: 26
  - Satisfied: 18
  - Very satisfied: 2
  - % Satisfied: 46%

- ITE (n=230)
  - Very dissatisfied: 7
  - Dissatisfied: 13
  - Somewhat dissatisfied: 19
  - Neutral: 28
  - Somewhat satisfied: 20
  - Satisfied: 12
  - Very satisfied: 1
  - % Satisfied: 33%

- 2010 or after (n=201)
  - Very dissatisfied: 2
  - Dissatisfied: 6
  - Somewhat dissatisfied: 16
  - Neutral: 26
  - Somewhat satisfied: 25
  - Satisfied: 22
  - Very satisfied: 3
  - % Satisfied: 50%

- 2009 or earlier (n=213)
  - Very dissatisfied: 6
  - Dissatisfied: 18
  - Somewhat dissatisfied: 26
  - Neutral: 24
  - Somewhat satisfied: 18
  - Satisfied: 9
  - Very satisfied: 0
  - % Satisfied: 27%

- HA worn up to 4 hrs/day (n=192)
  - Very dissatisfied: 8
  - Dissatisfied: 18
  - Somewhat dissatisfied: 23
  - Neutral: 28
  - Somewhat satisfied: 14
  - Satisfied: 8
  - Very satisfied: 2
  - % Satisfied: 24%

- HA worn 4-8 hrs/day (n=109)
  - Very dissatisfied: 4
  - Dissatisfied: 5
  - Somewhat dissatisfied: 20
  - Neutral: 25
  - Somewhat satisfied: 29
  - Satisfied: 16
  - Very satisfied: 2
  - % Satisfied: 47%

- HA worn more than 8 hrs/day (n=149)
  - Very dissatisfied: 1
  - Dissatisfied: 7
  - Somewhat dissatisfied: 15
  - Neutral: 27
  - Somewhat satisfied: 27
  - Satisfied: 22
  - Very satisfied: 1
  - % Satisfied: 50%
Overall satisfaction is lower for people with more severe hearing loss

Severe-profound hearing loss n=99

Mild-moderate hearing loss n=341
Factors influencing satisfaction with current hearing aids: Sound quality/signal processing is most important for overall satisfaction with hearing aids

<table>
<thead>
<tr>
<th>Dispenser</th>
<th>Influence on overall satisfaction with HA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of dispenser’s counselling</td>
<td>0.59</td>
</tr>
<tr>
<td>Quality of service after purchase</td>
<td>0.58</td>
</tr>
<tr>
<td>Professionalism of dispenser</td>
<td>0.57</td>
</tr>
<tr>
<td>Quality of service during hearing aid fitting period</td>
<td>0.56</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Listening situation</th>
<th>Influence on overall satisfaction with HA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use in noisy situations</td>
<td>0.74</td>
</tr>
<tr>
<td>Conversation with one person</td>
<td>0.74</td>
</tr>
<tr>
<td>Leisure activities</td>
<td>0.73</td>
</tr>
<tr>
<td>Conversation in large groups</td>
<td>0.72</td>
</tr>
<tr>
<td>Conversation in small groups</td>
<td>0.71</td>
</tr>
<tr>
<td>Watching TV</td>
<td>0.68</td>
</tr>
<tr>
<td>Understanding a lecture in a large public place</td>
<td>0.68</td>
</tr>
<tr>
<td>On the telephone</td>
<td>0.65</td>
</tr>
<tr>
<td>Listening to Music</td>
<td>0.64</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sound quality signal process.</th>
<th>Influence on overall satisfaction with HA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richness or fidelity of sound</td>
<td>0.82</td>
</tr>
<tr>
<td>Clearness of tone and sound</td>
<td>0.80</td>
</tr>
<tr>
<td>Natural sounding</td>
<td>0.80</td>
</tr>
<tr>
<td>Comfort with loud sounds</td>
<td>0.70</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product features</th>
<th>Influence on overall satisfaction with HA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>0.78</td>
</tr>
<tr>
<td>Overall fit/ Comfort</td>
<td>0.69</td>
</tr>
<tr>
<td>Value (performance versus money spent)</td>
<td>0.66</td>
</tr>
<tr>
<td>Managing whistling/feedback/buzzing</td>
<td>0.65</td>
</tr>
<tr>
<td>Visibility to others</td>
<td>0.51</td>
</tr>
<tr>
<td>Battery life</td>
<td>0.47</td>
</tr>
<tr>
<td>Ease of changing battery</td>
<td>0.46</td>
</tr>
</tbody>
</table>

*The Influence has been calculated with a correlation:* 0 means no relation between a criterion and overall satisfaction; 1 means a maximal relationship. **Read:** richness or fidelity of sound is the most important criterion for satisfaction.
### Satisfaction with current hearing aids

<table>
<thead>
<tr>
<th></th>
<th>% dissatisfied</th>
<th>% satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dispenser</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of service during hearing aid fitting period</td>
<td>7%</td>
<td>59%</td>
</tr>
<tr>
<td>Quality of service after purchase</td>
<td>9%</td>
<td>55%</td>
</tr>
<tr>
<td>Quality of dispenser’s counseling</td>
<td>7%</td>
<td>53%</td>
</tr>
<tr>
<td>Professionalism of dispenser</td>
<td>7%</td>
<td>53%</td>
</tr>
<tr>
<td><strong>Listening situation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conversation with one person</td>
<td>32%</td>
<td>43%</td>
</tr>
<tr>
<td>Conversation in small groups</td>
<td>32%</td>
<td>32%</td>
</tr>
<tr>
<td>Watching TV</td>
<td>26%</td>
<td>32%</td>
</tr>
<tr>
<td>Use in noisy situations</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>On the telephone</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Listening to Music</td>
<td>22%</td>
<td>25%</td>
</tr>
<tr>
<td>Conversation in large groups</td>
<td>21%</td>
<td>25%</td>
</tr>
<tr>
<td>Leisure activities</td>
<td>21%</td>
<td>25%</td>
</tr>
<tr>
<td>Understanding a lecture in a large public place</td>
<td>21%</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Sound quality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comfort with loud sounds</td>
<td>34%</td>
<td>32%</td>
</tr>
<tr>
<td>Clarity of tone and sound</td>
<td>36%</td>
<td>28%</td>
</tr>
<tr>
<td>Natural sounding</td>
<td>31%</td>
<td>26%</td>
</tr>
<tr>
<td>Richness or fidelity of sound</td>
<td>31%</td>
<td>26%</td>
</tr>
<tr>
<td><strong>Product features</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ease of changing battery</td>
<td>17%</td>
<td>45%</td>
</tr>
<tr>
<td>Reliability</td>
<td>18%</td>
<td>44%</td>
</tr>
<tr>
<td>Visibility to others</td>
<td>15%</td>
<td>44%</td>
</tr>
<tr>
<td>Overall fit/ Comfort</td>
<td>29%</td>
<td>34%</td>
</tr>
<tr>
<td>Battery life</td>
<td>34%</td>
<td>34%</td>
</tr>
<tr>
<td>Value (performance versus money spent)</td>
<td>36%</td>
<td>29%</td>
</tr>
<tr>
<td>Managing whistling/feedback/buzzing</td>
<td>34%</td>
<td>29%</td>
</tr>
</tbody>
</table>

% dissatisfied = % very dissatisfied + % dissatisfied + % somewhat dissatisfied
% satisfied = % somewhat satisfied + % satisfied + % very satisfied

HA-owner, n=450
Positive impact of hearing aids
Significant positive impact of hearing aids on different aspects – especially sense of safety, communication effectiveness and feelings about yourself have improved.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>HA-owner, n=450</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sense of safety</td>
<td>1</td>
</tr>
<tr>
<td>Communicate more effectively</td>
<td>2</td>
</tr>
<tr>
<td>Feelings about yourself</td>
<td>1</td>
</tr>
<tr>
<td>Mental/emotional health</td>
<td>2</td>
</tr>
<tr>
<td>Confidence in yourself</td>
<td>2</td>
</tr>
<tr>
<td>Mental ability</td>
<td>2</td>
</tr>
<tr>
<td>Relationships at home</td>
<td>2</td>
</tr>
<tr>
<td>Participate in group activities</td>
<td>2</td>
</tr>
<tr>
<td>Social life</td>
<td>3</td>
</tr>
<tr>
<td>Sense of independence</td>
<td>1</td>
</tr>
<tr>
<td>Relationships at work</td>
<td>1</td>
</tr>
<tr>
<td>Physical health</td>
<td>1</td>
</tr>
</tbody>
</table>

| Aspect                          | | |
|---------------------------------|---|---|---|---|---|
| Sense of safety                 | A lot worse | Worse | The same | Better | A lot better |
| Communicate more effectively    | 1 | 7 | 50 | 38 | 2 |
| Feelings about yourself         | 1 | 8 | 56 | 33 | 2 |
| Mental/emotional health          | 2 | 5 | 61 | 29 | 3 |
| Confidence in yourself           | 2 | 7 | 65 | 23 | 3 |
| Mental ability                  | 2 | 6 | 67 | 22 | 2 |
| Relationships at home           | 2 | 3 | 72 | 20 | 2 |
| Participate in group activities  | 2 | 12 | 63 | 20 | 2 |
| Social life                     | 3 | 9 | 69 | 17 | 3 |
| Sense of independence            | 1 | 6 | 74 | 18 | 2 |
| Relationships at work           | 1 | 5 | 76 | 14 | 4 |
| Physical health                 | 1 | 8 | 74 | 14 | 2 |
Impact of hearing aids is perceived more positive by patients with a Low 50% hearing loss in all aspects.

% of HA owners feeling better/a lot better

- Low 50% hearing loss (n=64)
- Top 50% hearing loss (n=337)
For the significant others, the situation has not significantly improved since the person in household/parent is wearing hearing aids.

How did the following aspects change since person X is wearing hearing aids?

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Number of Participants</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication with Person</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Personal relationship with Person</td>
<td>80</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Quarrels/disputes with Person</td>
<td>79</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Social activities together with Person</td>
<td>73</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Someone in HH / parent have HA, n=215
4. Analysis of hearing impaired non-owners
Reasons for not having a hearing aid
To analyse reasons of non-adoption we look at the Top 50% HL group, as the structure of hearing loss is more similar to that of hearing aid owners.

Hearing loss characteristics: Owners compared to non-owners

<table>
<thead>
<tr>
<th></th>
<th>% HA Owner (n=450)</th>
<th>%HA-Non-owner Low 50% HL</th>
<th>%HA-Non-owner Top 50% HL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ears impaired</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unilateral loss</td>
<td>24%</td>
<td>46%</td>
<td>31%</td>
</tr>
<tr>
<td>Bilateral loss</td>
<td>76%</td>
<td>54%</td>
<td>69%</td>
</tr>
</tbody>
</table>

| Perceived loss   |                    |                          |                          |
| Mild             | 17%                | 52%                      | 17%                      |
| Moderate         | 56%                | 47%                      | 70%                      |
| Severe           | 24%                | 1%                       | 8%                       |
| Profound         | 3%                 | 0%                       | 4%                       |

More similar hearing loss-structure
Top 10 reasons for not having a hearing aid (I/II)

- Uncomfortable: 51% Reason, 21% Somewhat a reason, 27% Not a reason
- Hearing loss not severe enough: 40% Reason, 22% Somewhat a reason, 37% Not a reason
- They do not restore your hearing to normal: 39% Reason, 20% Somewhat a reason, 41% Not a reason
- Hear well enough in most situations: 60% Reason, 29% Somewhat a reason, 51% Not a reason
- They do not work well in noisy situations: 60% Reason, 25% Somewhat a reason, 51% Not a reason
- Would be embarrassed to wear a hearing aid: 60% Reason, 17% Somewhat a reason, 59% Not a reason
- Have hearing loss only with low frequency sounds: 59% Reason, 19% Somewhat a reason, 60% Not a reason
- Have hearing loss only with high pitch sounds: 60% Reason, 26% Somewhat a reason, 60% Not a reason
- Have tinnitus (ringing in ears): 62% Reason, 19% Somewhat a reason, 62% Not a reason
- Bad design: 63% Reason, 20% Somewhat a reason, 63% Not a reason

Base: non owners Top 50% HL: n=187
Less important reasons for not having a hearing aid (II/II)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Not a reason</th>
<th>Somewhat a reason</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have hearing loss in only one ear</td>
<td>63</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Do not admit I have a hearing loss in public</td>
<td>64</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Another hearing aid owners opinion</td>
<td>65</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>Cannot afford a hearing aid</td>
<td>65</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Have tried hearing aid and they do not work</td>
<td>66</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Have not had hearing tested yet</td>
<td>67</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>Do not know where to get hearing aids</td>
<td>67</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Ear doctors opinion (ENT)</td>
<td>68</td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>Do not trust Hearing Aid Dispenser/Audiologist</td>
<td>69</td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>Family doctors opinion (GP)</td>
<td>71</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Have more serious priorities</td>
<td>77</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Have Sensor-neural hearing loss (nerve deafness)</td>
<td>78</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Hearing problem requires surgery</td>
<td>79</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Hearing Aid Dispenser/Audiologists opinion</td>
<td>80</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Social / Family opinion such as child, spouse, friend</td>
<td>81</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Had surgery - hearing aids wont help</td>
<td>83</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>I have vision or dexterity problems</td>
<td>85</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

Base: non owners Top 50% HL: n=187
Top 10 reasons for hearing aid owners NOT using them

- Uncomfortable: 65% Reason, 22% Somewhat a reason, 13% Not a reason
- They do not work well in noisy situations: 72% Reason, 14% Somewhat a reason, 14% Not a reason
- Have tried hearing aid and they do not work: 71% Reason, 15% Somewhat a reason, 14% Not a reason
- They do not restore your hearing to normal: 62% Reason, 23% Somewhat a reason, 16% Not a reason
- Have tinnitus (ringing in ears): 20% Reason, 16% Somewhat a reason, 64% Not a reason
- Hearing loss not severe enough: 22% Reason, 8% Somewhat a reason, 69% Not a reason
- Have hearing loss in only one ear: 17% Reason, 13% Somewhat a reason, 69% Not a reason
- Bad design: 6% Reason, 23% Somewhat a reason, 70% Not a reason
- Have hearing loss only with high pitch sounds: 5% Reason, 23% Somewhat a reason, 72% Not a reason
- Would be embarrassed to wear a hearing aid: 7% Reason, 18% Somewhat a reason, 75% Not a reason

Owners who don't use, n=47
Negative impact of hearing loss
Compared to impaired hearing aid non-owners with significant hearing loss (Top 50% hearing loss*), hearing aid owners feel less exhausted in the evenings.

In the evenings I often feel physically exhausted

<table>
<thead>
<tr>
<th></th>
<th>Disagree strongly</th>
<th>Rather disagree</th>
<th>Neutral</th>
<th>Rather agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hearing aid</td>
<td>10%</td>
<td>25%</td>
<td>28%</td>
<td>26%</td>
<td>11%</td>
</tr>
<tr>
<td>Top 50% hearing loss, no hearing aid</td>
<td>6%</td>
<td>15%</td>
<td>19%</td>
<td>44%</td>
<td>16%</td>
</tr>
</tbody>
</table>

In the evenings I often feel mentally exhausted

<table>
<thead>
<tr>
<th></th>
<th>Disagree strongly</th>
<th>Rather disagree</th>
<th>Neutral</th>
<th>Rather agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hearing aid</td>
<td>13%</td>
<td>28%</td>
<td>30%</td>
<td>23%</td>
<td>7%</td>
</tr>
<tr>
<td>Top 50% hearing loss, no hearing aid</td>
<td>7%</td>
<td>20%</td>
<td>22%</td>
<td>40%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Base: Top 50% n=195/ hearing aid n=438

*Construction of 6-groups: A factor analysis was performed to identify one factor "degree of hearing loss". The following questions were included in the factor:
- Number of ears impaired (one or two)
- Stated hearing loss (Mild to Profound)
- Scores on 6 APHAB-EC – like questions (Scaled 1-5)
- When NOT using a hearing aid, how difficult is it for you to follow conversations in the presence of noise

People were segmented into 6 groups of same size (16.67% of all hearing impaired in the sample).
Buying intentions
4% of non-owners intend to get a hearing aid within the next year. Re-buying intention is higher than first-buying intention.

**Buying intention hearing impaired in %**

<table>
<thead>
<tr>
<th>Owner</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>8</td>
<td>6</td>
<td>8</td>
<td>2</td>
<td>3</td>
<td>11</td>
<td>57</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-owner</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>22</td>
<td></td>
<td></td>
<td>65</td>
<td></td>
</tr>
</tbody>
</table>

- **Within the next 6 months**
- **In about 4 years**
- **Not within the next 7 years**
- **In about a year**
- **In about 5 years**
- **In about 2 years**
- **In about 6 years**
- **In about 3 years**
- **In about 7 years**
- **Don't know**

**How often do you need new hearing aids? (owners only)**

<table>
<thead>
<tr>
<th>Owner</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>24</td>
<td>63</td>
</tr>
</tbody>
</table>

- **Every year**
- **Every other year**
- **Every third year**
- **Every fourth year – or more**
- **Don't know**
The most important influencing factors to get hearing aids are worsening hearing loss, ENT and significant others plus GP for the non-owners

**Owner: Thinking back to when you obtained your first hearing aid(s), what influenced you to obtain /purchase the hearing aid(s)?**

**Non-owner: Think about the option to obtain / purchase a hearing aid. What do you think would influence you to obtain / purchase a hearing aid?**

- **Hearing loss got worse**: 65% (Owner), 67% (Non-owner)
- **ENT/ Ear Doctor**: 28% (Owner), 40% (Non-owner)
- **GP /Family doctor**: 10% (Owner), 32% (Non-owner)
- **Spouse, relative, child, friend**: 29% (Owner), 38% (Non-owner)
- **Price of hearing aid**: 11% (Owner), 21% (Non-owner)
- **Free due to coverage by Insurance / Received hearing aid free of charge**: 4% (Owner), 13% (Non-owner)
- **Another hearing aid owner (word of mouth)**: 9% (Owner), 13% (Non-owner)
- **Safety concerns**: 11% (Owner), 8% (Non-owner)
- **Financial Situation improved**: 13% (Owner), 8% (Non-owner)
- **Hearing loss article or literature**: 6% (Owner), 7% (Non-owner)
- **Audiologist**: 6% (Owner), 11% (Non-owner)
- **Hearing aid dispenser**: 3% (Owner), 15% (Non-owner)
- **Newspaper advertisement**: 3% (Owner), 11% (Non-owner)
5. Additional JapanTrak questions
18% of hearing aid owners purchased the hearing aid in an optical shop; 14% by mail order or online

Where was your most current hearing aid purchased?

- 56% Hospital/clinic
- 18% Optical shop
- 7% Electric shop
- 4% Other (electronic store, watch and jewelry store, department store)
- 7% Mail order
- 5% Internet
- 2% Hearing Aid Dispenser/Audiologist

Base: N=438
58% of hearing aid owners have ITE hearing aid(s)

What type of hearing aid do you own? Consider your most recent purchase.

- Body aid: 6%
- Behind the ear: 31%
- In the ear: 58%
- Hearing Device: 5%
People with hearing aids: About 5 years have passed since they became aware of the hearing loss until they got a hearing aid

Thinking back before you purchased your first hearing aid: How many years have passed since you became aware of your hearing loss until you received a hearing aid?

Median: 5 years
Half of the people with hearing loss are aware of any hearing aid shop in the area where they live.

In the area where you live, are you aware of any hearing aid shop?

- **Yes**: 50%
- **No**: 35%
- **Don't know**: 15%

<table>
<thead>
<tr>
<th>Category</th>
<th>Yes</th>
<th>No</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>75%</td>
<td>18%</td>
<td>7%</td>
</tr>
<tr>
<td>Hearing loss but no aid</td>
<td>46%</td>
<td>14%</td>
<td>15%</td>
</tr>
<tr>
<td>Hearing aid owner</td>
<td>50%</td>
<td>14%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Unweighted Sample Size = 1347
16% of the hearing impaired know the expression “Nintei - Hocyouki - Ginou – Sha” (“certified hearing aid worker”)

Do you know, what the following expressions mean? Nintei - Hocyouki - Ginou - Sha

- Total: 84%
- Hearing loss but no hearing aid: 88%
- Hearing aid owner: 63%

Unweighted Sample Size = 1339
24% of the hearing impaired know the expression “Nintei - Hocyouki - Senmon - Ten” (“certified hearing aid shop”)

Do you know, what the following expressions mean? Nintei - Hocyouki - Senmon - Ten

Unweighted Sample Size = 1339
Only 3% of the hearing impaired know the expression “Techno-aid-kyoukai” (“association technical aids”).

Do you know, what the following expressions mean? Techno-aid-kyoukai

- Total: 97% Yes, 3% No
- Hearing loss but no hearing aid: 98% Yes, 2% No
- Hearing aid owner: 92% Yes, 8% No

Unweighted Sample Size = 1335
### Demographics (1): Hearing instrument adoption rates and populations

Profiles: Categories add to 100%*

<table>
<thead>
<tr>
<th></th>
<th>Count</th>
<th>Hearing difficulty</th>
<th>Hearing aid adoption rate % (Base=hearing impaired)</th>
<th>No hearing loss</th>
<th>Hearing loss but no hearing aid</th>
<th>Hearing aid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>7305</td>
<td>10.3%</td>
<td>14.5%</td>
<td>48.9%</td>
<td>45.6%</td>
<td>46.9%</td>
</tr>
<tr>
<td>Female</td>
<td>7731</td>
<td>11.5%</td>
<td>13.9%</td>
<td>51.1%</td>
<td>54.4%</td>
<td>53.1%</td>
</tr>
<tr>
<td><strong>Age recoded</strong></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>1 - 14</td>
<td>2030</td>
<td>0.6%</td>
<td>28.7%</td>
<td>15.1%</td>
<td>0.6%</td>
<td>1.6%</td>
</tr>
<tr>
<td>15 - 24</td>
<td>1468</td>
<td>3.5%</td>
<td>5.8%</td>
<td>10.6%</td>
<td>3.4%</td>
<td>1.3%</td>
</tr>
<tr>
<td>25 - 34</td>
<td>1778</td>
<td>2.6%</td>
<td>17.9%</td>
<td>12.9%</td>
<td>2.7%</td>
<td>3.6%</td>
</tr>
<tr>
<td>35 - 44</td>
<td>2166</td>
<td>3.6%</td>
<td>8.5%</td>
<td>15.6%</td>
<td>5.0%</td>
<td>2.8%</td>
</tr>
<tr>
<td>45 - 54</td>
<td>1839</td>
<td>6.6%</td>
<td>2.9%</td>
<td>12.8%</td>
<td>8.3%</td>
<td>1.5%</td>
</tr>
<tr>
<td>55 - 64</td>
<td>2165</td>
<td>10.8%</td>
<td>8.0%</td>
<td>14.4%</td>
<td>15.2%</td>
<td>8.0%</td>
</tr>
<tr>
<td>65 - 74</td>
<td>1816</td>
<td>18.0%</td>
<td>9.3%</td>
<td>11.1%</td>
<td>21.0%</td>
<td>13.1%</td>
</tr>
<tr>
<td>74+</td>
<td>1774</td>
<td>43.7%</td>
<td>20.4%</td>
<td>7.5%</td>
<td>43.6%</td>
<td>68.1%</td>
</tr>
<tr>
<td><strong>Type of household</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>single household</td>
<td>1136</td>
<td>17.7%</td>
<td>16.3%</td>
<td>7.0%</td>
<td>11.9%</td>
<td>14.1%</td>
</tr>
<tr>
<td>Couple, no kids</td>
<td>2906</td>
<td>14.9%</td>
<td>13.3%</td>
<td>18.5%</td>
<td>26.6%</td>
<td>24.8%</td>
</tr>
<tr>
<td>Couple with kid(s)</td>
<td>7231</td>
<td>5.7%</td>
<td>10.3%</td>
<td>50.9%</td>
<td>26.1%</td>
<td>18.3%</td>
</tr>
<tr>
<td>Single mom/dad with kid(s)</td>
<td>1927</td>
<td>14.1%</td>
<td>13.7%</td>
<td>12.4%</td>
<td>16.6%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Retirement home, hospital etc.</td>
<td>153</td>
<td>55.1%</td>
<td>14.6%</td>
<td>0.5%</td>
<td>5.1%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Other</td>
<td>1677</td>
<td>14.4%</td>
<td>20.7%</td>
<td>10.7%</td>
<td>13.6%</td>
<td>21.5%</td>
</tr>
</tbody>
</table>

* Small sample sizes in some categories
# Demographics (2) Hearing instrument adoption rates and populations

<table>
<thead>
<tr>
<th>Status</th>
<th>Count</th>
<th>Hearing difficulty</th>
<th>Hearing aid adoption rate % (Base=hearing impaired)</th>
<th>No hearing loss</th>
<th>Hearing loss but no hearing aid</th>
<th>Hearing aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>The head of the household</td>
<td>5409</td>
<td>15.7%</td>
<td>13.1%</td>
<td>34.3%</td>
<td>55.1%</td>
<td>50.3%</td>
</tr>
<tr>
<td>The spouse of the head of the household</td>
<td>3719</td>
<td>9.5%</td>
<td>10.8%</td>
<td>25.3%</td>
<td>23.4%</td>
<td>17.1%</td>
</tr>
<tr>
<td>Daughter/son of head of household</td>
<td>4641</td>
<td>1.7%</td>
<td>16.2%</td>
<td>34.3%</td>
<td>5.0%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Parent of the head of the household</td>
<td>618</td>
<td>36.4%</td>
<td>20.1%</td>
<td>3.0%</td>
<td>13.4%</td>
<td>20.4%</td>
</tr>
<tr>
<td>Other person</td>
<td>484</td>
<td>11.5%</td>
<td>25.2%</td>
<td>3.2%</td>
<td>3.1%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full time employed</td>
<td>4748</td>
<td>6.3%</td>
<td>7.8%</td>
<td>39.4%</td>
<td>19.6%</td>
<td>10.2%</td>
</tr>
<tr>
<td>Part time employed</td>
<td>1715</td>
<td>7.5%</td>
<td>8.9%</td>
<td>14.1%</td>
<td>8.3%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Unemployed / not working</td>
<td>2802</td>
<td>13.3%</td>
<td>14.6%</td>
<td>21.5%</td>
<td>22.6%</td>
<td>23.7%</td>
</tr>
<tr>
<td>Retired under a disability pension scheme</td>
<td>2155</td>
<td>30.8%</td>
<td>17.9%</td>
<td>13.2%</td>
<td>38.8%</td>
<td>52.0%</td>
</tr>
<tr>
<td>Early retired under an early retirement scheme</td>
<td>83</td>
<td>18.4%</td>
<td>18.0%</td>
<td>0.6%</td>
<td>0.9%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Retired (at the official retirement age)</td>
<td>531</td>
<td>23.5%</td>
<td>12.0%</td>
<td>3.6%</td>
<td>7.8%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Student / pupil / in training</td>
<td>879</td>
<td>3.4%</td>
<td>10.0%</td>
<td>7.5%</td>
<td>1.9%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a middle school</td>
<td>1102</td>
<td>24.9%</td>
<td>16.7%</td>
<td>7.3%</td>
<td>16.2%</td>
<td>20.0%</td>
</tr>
<tr>
<td>a high school</td>
<td>4462</td>
<td>13.1%</td>
<td>12.9%</td>
<td>34.4%</td>
<td>36.2%</td>
<td>32.8%</td>
</tr>
<tr>
<td>a vocational (technical) school</td>
<td>1149</td>
<td>8.5%</td>
<td>12.7%</td>
<td>9.3%</td>
<td>6.0%</td>
<td>5.4%</td>
</tr>
<tr>
<td>a junior college</td>
<td>1014</td>
<td>7.7%</td>
<td>13.4%</td>
<td>8.3%</td>
<td>4.8%</td>
<td>4.6%</td>
</tr>
<tr>
<td>a university</td>
<td>3612</td>
<td>9.2%</td>
<td>10.2%</td>
<td>29.1%</td>
<td>21.1%</td>
<td>14.8%</td>
</tr>
<tr>
<td>a graduate school</td>
<td>389</td>
<td>8.9%</td>
<td>9.4%</td>
<td>3.1%</td>
<td>2.2%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Other</td>
<td>424</td>
<td>28.2%</td>
<td>20.7%</td>
<td>2.7%</td>
<td>6.7%</td>
<td>10.8%</td>
</tr>
<tr>
<td>Prefer not to say</td>
<td>765</td>
<td>15.1%</td>
<td>20.4%</td>
<td>5.8%</td>
<td>6.6%</td>
<td>10.3%</td>
</tr>
</tbody>
</table>

* Small sample sizes in some categories

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