Summary

EuroTrak DENMARK 2012

1. Introduction
2. Market overview
3. Analysis of hearing aid owners
4. Analysis of hearing impaired non-owners
EuroTrak 2012: Eight countries involved

<table>
<thead>
<tr>
<th>Country</th>
<th>2009</th>
<th>2012</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
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<td>✓</td>
<td>EHIMA</td>
</tr>
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<td>HSM</td>
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<td>Norway</td>
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<td>Italy</td>
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</tr>
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<td>Japan</td>
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</tr>
<tr>
<td>Denmark</td>
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<td></td>
<td>LFH</td>
</tr>
</tbody>
</table>

EuroTrak and JapanTrak were developed and executed by Anovum, Zürich
Review EuroTrak 2009/2012

- Trade press: Some covers and 30+ articles
  - Hearing Review / Audio Infos / Hörakustik, etc..

- Conferences/ Stakeholders
  - (EUHA, BSHAA, NHS conference, Nordic college, HA wholesalers, Las Vegas, etc...)

- Wide coverage in the news
  - > 1’000 hits if you google “EHIMA EuroTrak”

- Well received by opinion leaders
  - Kochkin/Davies/Strom

- Interest from
  - Australia, Brazil, Spain, Sweden, China, Taiwan, Singapore, Argentina
Summary
1. Introduction

- EuroTrak Denmark 2012 was designed and executed by Anovum (Zurich) on behalf of LFH.

- Sample sizes Denmark 2012:
  - Representative sample (sample 1): n=14’070 people
  - Hearing impaired (sample 2): n=1’320 people
    - Hearing impaired non-owners: n=664 people with hearing loss (HL)
    - HA owners: n=656 people with hearing aid (HA)

- EuroTrak Denmark 2012 is part of the EuroTrak studies:
Summary

2. Market overview

- **Stated hearing loss prevalence**
  - Total: 10.0% (18+: 11.9%).
  - Binaural hearing loss: HA owners: 85%, HA non-owners: 58%.
  - Tinnitus prevalence 26% (self stated, sometimes or permanently).
  - Hearing Tests: 38% had a hearing test in the last 5 years.

- **Hearing aid adoption rate (HA penetration)**
  - Total: 47.8%.
  - Total age group 18+: 50.0 %.
  - 82% of HA owners have binaural treatment.

- **The route to the hearing aid**
  - 70% of the hearing impaired discussed hearing loss with an ENT doctor or family doctor.
  - 49% got hearing aids recommended from the ENT or family doctor (drop out rate = 30%).
  - 56% of the GP consultations referred to an ENT. 11% recommended no action.
  - 34% of ENT consultations referred to a audiologist, 37% recommended to get a hearing aid, 33% recommended no action.

- **Potential social cost-savings due to the use of hearing aids**
  - Hearing aids are believed to have a positive impact on the job.
  - Hearing aid owners have a lower risk of being depressive and forgetful compared to impaired non-owners.
Summary

3. Analysis of hearing aid owners

- **Hearing aid ownership and usage**
  - 91% received some kind of 3rd party reimbursement.
  - 62% of the currently owned HAs were fitted in 2009 or later.
  - The average age of the currently owned HAs is 4.1 years.
  - The median age of hearing aids before replacement is 4 years.
  - On average, HAs are worn 9.2 hours a day.
  - 40% of hearing aid owners have never heard of wireless technology in connection with hearing aids. 20% rate wireless technology as very important.

- **Satisfaction with HAs**
  - 70% of the HA owners are satisfied with their HAs.
  - The more hours worn per day, the higher the satisfaction.
  - Satisfaction with HAs bought 2010 or after is higher than with HAs bought before.
  - If HA was purchased at a privat høreapparatbutik, satisfaction with HAs is higher than if it was purchased at an offentlig høreklinik.

- **Positive impact of HAs**
  - Significant positive impact of HAs on different aspects – especially communication, relationship at home and group activities.
Summary
4. Analysis of hearing impaired non-owners

- Reasons not to own/use HAs
  - Information deficit non-owners: 48% don’t know whether any third party would pay, 16% assume no third party would pay (Insurance, Government,...).
  - The main reasons for not using hearing aids are that the hearing loss was not severe enough, they hear well enough in most situations and that they think hearing aids are uncomfortable.
  - In Denmark, costs of hearing aids are not an issue.
  - 13% who own HAs don’t use them at all; 20% use them less than one hour/day. Main reasons for this are: “uncomfortable”, “hear well enough in most situations” and “HAs 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.
  - 14% of non-owners intend to get a hearing aid within the next year.
  - The most important influencing factors are worsening hearing loss, significant others plus the fact that it’s for free.
Results

EuroTrak Denmark 2012

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

5. Appendix
   - Demographics: Hearing instrument adoption rates and populations
1. Introduction
Objectives and organisation
Organisation of EuroTrak 2012

Organisation

- Principal of the project EuroTrak Denmark is LFH.
- Anovum Zurich developed the concept of EuroTrak, 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 questionnaire in cooperation with Sergei Kochkin, Ph.D., Executive Director, Better Hearing Institute.

Use of the data

- LFH 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 LFH 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 – EuroTrak – Denmark/2012/n=[relevant sample size]”

- LFH member 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 panelist pools of more than 100’000 people
3. Screening questionnaire: Stated hearing loss and hearing aid usage + demographics
4. Result: Representative sample of n=14’070 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=664 hearing aid owners and n=656 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 Denmark 2012

% hearing loss prevalence

- Total: 10.0%
- Total 18+: 11.9%
- 74+: 34.9%
- 65-74: 22.1%
- 55-64: 12.2%
- 45-54: 7.6%
- 35-44: 5.9%
- 25-34: 6.3%
- 15-24: 3.5%
- <=14: 3.2%

EuroTrak 2012
Base: 14'070

© Anovum 2012 - EuroTrak 2012
Self-stated hearing loss prevalence in Denmark is similar to UK and France

% stated hearing impaired (Base: population)

<table>
<thead>
<tr>
<th>Country</th>
<th>EuroTrak 2012</th>
<th>EuroTrak 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>10.0%</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>12.5%</td>
<td>13.1%</td>
</tr>
<tr>
<td>UK</td>
<td>9.1%</td>
<td>9.5%</td>
</tr>
<tr>
<td>France</td>
<td>9.4%</td>
<td>10.4%</td>
</tr>
<tr>
<td>USA</td>
<td>11.3%</td>
<td></td>
</tr>
</tbody>
</table>

Marke Trak VIII 2008

© Anovum 2012 - EuroTrak 2012
Hearing aid adoption rate Denmark 2012
47.8% of hearing impaired have hearing aid(s), 82% of them have binaural treatment

% of hearing impaired

- Total: 47.8%
- Total 18+: 50.0%
- 65+: 62.2%
- 45-64: 41.0%
- <=44: 27.0%

EuroTrak 2012
Base: 1,582

Binaural treatment: 82%
Monaural treatment: 18%

EuroTrak 2012
HA owners (Base: 785)
Binaural treatment: 83%
Monaural treatment: 17%
The proportion of people with hearing aid(s) in Denmark is higher than in Germany, France and UK

Adoption: Proportion of people with hearing aid (% of population) and adoption rate (% of stated impaired)

Marke Trak VIII 2008

EuroTrak 2012 (% of population) EuroTrak 2012 (% of stated impaired)
Hearing aid adoption differs

Differences may be caused by:
- Health care system
- Reimbursement system / income structure
- Market development
- Culture
- etc.

Source: EuroTrak / JapanTrak

2012 (% of population)  2012 (% of stated impaired)
Norway 3,7% 42,5%
UK 3,7% 41,1%
Switzerland 3,4% 38,8%
Germany 4,2% 34,0%
France 2,8% 30,4%
Italy 2,9% 24,6%
Japan 1,5% 14,1%
USA (MarkTrak 2008) 2,8% 24,6%
The more severe the hearing loss, the higher the adoption rate

Hearing loss 6-groups

* 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

© Anovum 2012 - EuroTrak 2012

HA-non-owner, n=664
HA-owner, n=656
Hearing loss characteristics: Owners compared to non-owners

<table>
<thead>
<tr>
<th></th>
<th>HA-Non-owner n=664</th>
<th>HA Owner n= 656</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>42%</td>
<td>15%</td>
<td>27%</td>
</tr>
<tr>
<td>Bilateral loss</td>
<td>58%</td>
<td>85%</td>
<td>60%</td>
</tr>
<tr>
<td><strong>Perceived loss</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mild</td>
<td>68%</td>
<td>21%</td>
<td>23%</td>
</tr>
<tr>
<td>Moderate</td>
<td>24%</td>
<td>48%</td>
<td>65%</td>
</tr>
<tr>
<td>Severe</td>
<td>4%</td>
<td>22%</td>
<td>78%*</td>
</tr>
<tr>
<td>Profound</td>
<td>4%</td>
<td>9%</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

Euro Trak 2012

- Hearing impaired (stated)
- Adoption (% of population)
- Adoption (% of stated impaired)
Hearing tests and prevalence of tinnitus
Only 28% state their hearing has never been tested

- Yes, in the last 12 months: 12%
- Yes, in the last 1-5 years: 26%
- Yes, more than 5 years ago: 34%
- No, never: 28%

Base = 9,710
Prevalence of tinnitus 1/2

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

- 74% Yes permanently in one ear
- 21% Yes permanently in both ears
- 4% Yes, sometimes
- 2% No

Have you ever thought about a treatment of your tinnitus?

- 83% I have / have had a treatment
- 17% I considered, but did not have treatment
- 3% I have never considered a treatment

Base: 3'956
Prevalence of tinnitus 2/2
The route to the hearing aid: Drop-out rates and reasons for drop-outs
The route to the hearing aid: Overview

- All hearing impaired: 100%
- Discussed hearing loss with ear doctor and/or family doctor: 70%
- Positive medical advice (Ear doctor or family doctor recommend further action): 49%
- Discussed hearing loss with HA dispenser/audiologist: 54%
- Positive advice HA dispenser/audiologist: 45%
- Bought hearing aid: 48%

Drop out:
- Impaired ENT/Doctor: 30%
- ENT/Doctor: 30%
- Recommend: 30%
- Owner: 3%

Base: n=1'320
Route to the hearing aid: Country comparison of drop-outs

- **UK**: 9.1% Aware (stated HL)
- **Germany**: 12.5% Aware (stated HL)
- **Poland**: 9.4% Aware (stated HL)
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=1'320
Recommendations by profession

- **GP (N=569)**
  - Referred to an ear doctor (ENT): 31%
  - Referred to a hearing aid dispenser / audiologist: 11%
  - Recommended to get a hearing aid: 11%
  - Recommended no further action: 56%

- **ENT (N=766)**
  - Referred to an ear doctor (ENT): 34%
  - Referred to a hearing aid dispenser / audiologist: 37%
  - Recommended to get a hearing aid: 33%
  - Recommended no further action: 84%

- **Audiologist (N=716)**
  - Referred to an ear doctor (ENT): 16%
  - Referred to a hearing aid dispenser / audiologist: 10%
  - Recommended to get a hearing aid: 30%
  - Recommended no further action: 50%
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: 45%
HA owner: 52%
Hearing impaired non-owners: 40%

What did he/she recommend?

HA owner (Base: 327)
- Referred to a hearing aid dispenser / audiologist: 39%
- Referred to an ear doctor (ENT): 54%
- Recommended to get a hearing aid: 15%
- Recommended no further action: 3%

Impaired non-owner (Base: 242)
- Referred to a hearing aid dispenser / audiologist: 22%
- Referred to an ear doctor (ENT): 59%
- Recommended to get a hearing aid: 6%
- Recommended no further action: 20%
Non-owners: Reasons for not owning a HA
If GP recommended further action (open ended question, coded)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>HL not severe enough</td>
<td>34%</td>
</tr>
<tr>
<td>HA don't help, other problem (glue ear, inverted ear drums, tinnitus, ...)</td>
<td>25%</td>
</tr>
<tr>
<td>don't need HA, don't want HA, used to HL</td>
<td>14%</td>
</tr>
<tr>
<td>still in the process of getting HAs, no time yet, waiting for appointment</td>
<td>12%</td>
</tr>
<tr>
<td>tried HA, didn't help</td>
<td>7%</td>
</tr>
<tr>
<td>hospital, ENT said it's not necessary</td>
<td>6%</td>
</tr>
<tr>
<td>HL too severe, deafness</td>
<td>2%</td>
</tr>
<tr>
<td>vanity, looks of HA</td>
<td>1%</td>
</tr>
<tr>
<td>other</td>
<td>1%</td>
</tr>
</tbody>
</table>

Base: 174

For example:
- høretab er stadig svagt så jeg behøver ikke høreapperat endnu, skal have høreprøve igen om 1 år
- Skade i indre øre, kan ikke afhjælpes med høreapparat
- Havde fået tid, men aflyste, da jeg ikke vil have høreapparat
- venter på en undersøgelse i århus, for at få målt hvor slemt det er og hvilken apperat jeg kan bruge
The route to the hearing aid: ENT
Have you discussed your hearing problem with an ear doctor (ENT)?

% Discussed with ENT

<table>
<thead>
<tr>
<th>Category</th>
<th>% Discussed with ENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total hearing impaired</td>
<td>60%</td>
</tr>
<tr>
<td>HA owner</td>
<td>77%</td>
</tr>
<tr>
<td>Hearing impaired non-owners</td>
<td>44%</td>
</tr>
</tbody>
</table>

What did he/she recommend?

HA owner (Base: 496)
- Did prescribe a hearing aid: 57%
- Referred to a hearing aid dispenser / audiologist: 45%
- Recommended no further action: 5%

Impaired non-owner (Base: 270)
- Did prescribe a hearing aid: 8%
- Referred to a hearing aid dispenser / audiologist: 17%
- Recommended no further action: 76%
Non-owners: Reasons for not owning a HA
If ENT recommended further action (open ended question, coded)

<table>
<thead>
<tr>
<th>Reason for Not Owning</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>don't need HA, don't want HA, used to HL</td>
<td>21%</td>
</tr>
<tr>
<td>HA don't help, other problem (glue ear, inverted ear drums, tinnitus, ...)</td>
<td>20%</td>
</tr>
<tr>
<td>still in the process of getting HAs, no time yet, waiting for appointment</td>
<td>19%</td>
</tr>
<tr>
<td>tried HA, didn't help</td>
<td>18%</td>
</tr>
<tr>
<td>HL not severe enough</td>
<td>10%</td>
</tr>
<tr>
<td>hospital, ENT said it's not necessary</td>
<td>7%</td>
</tr>
<tr>
<td>vanity, looks of HA</td>
<td>3%</td>
</tr>
<tr>
<td>other</td>
<td>2%</td>
</tr>
</tbody>
</table>

For example:
- Har ikke lyst
- Har været på hospitalets hørelinik, de kan ikke gøre noget ved min hørelse. Et høreapparat vil ikke kunne hjælpe mig.
- Har besluttet at få høreapparat. Er bestilt og skal afhentes meget snart.
- Har prøvet, 35 år siden. Virkede ikke..

Base: 63
The route to the hearing aid: Audiologist
Have you discussed your hearing problem with a Hearing Aid Dispenser/Audiologist?

% Discussed with Audiologist

<table>
<thead>
<tr>
<th>Category</th>
<th>Discussed with Audiologist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total hearing impaired</td>
<td>54%</td>
</tr>
<tr>
<td>HA owner</td>
<td>89%</td>
</tr>
<tr>
<td>Hearing impaired non-owners</td>
<td>24%</td>
</tr>
</tbody>
</table>

What did he/she recommend?

<table>
<thead>
<tr>
<th>Category</th>
<th>Recommended to get a hearing aid</th>
<th>Recommended not to get a hearing aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA owner (Base: 561)</td>
<td>99%</td>
<td>1%</td>
</tr>
<tr>
<td>Impaired non-owner (Base: 155)</td>
<td>34%</td>
<td>66%</td>
</tr>
</tbody>
</table>
Non-owners: Reasons for not owning a HA
If Audiologist recommended to get HA (open ended question, coded)

Audiologist recommended to get HA

- tried HA, didn't help: 47%
- still in the process of getting HAs, no time yet, waiting for appointment: 16%
- don't need HA, don't want HA, used to HL: 11%
- HL not severe enough: 9%
- costs: 6%
- HA don't help, other problem (glue ear, inverted ear drums, tinnitus, ...): 2%
- vanity, looks of HA: 1%
- other: 5%
- no answer: 3%

Base: 47 (low sample size!)

For example:

Jeg har anvendt høreapparat, men min høre
nedsættelses karakter gør at høreapparater
ikke hjælpen, men kun forstærker de lyde
jeg ikke kan bruge til noget.

Har besluttet at få høreapparat. Er bestilt og
skal afhentes meget snart.

Jeg vil ikke have et.
Potential social cost-savings due to the use of hearing aids: Work competitiveness, depressive and dementia symptoms
**Work competitiveness:** 83% 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?

- Of no use: 17%
- Of some use: 50%
- Of significant use: 33%

Base: N=204
**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>21%</td>
<td>53%</td>
</tr>
<tr>
<td>I think that people with an untreated hearing loss tend not to get the job they deserve</td>
<td>20%</td>
<td>51%</td>
</tr>
<tr>
<td>I think that people with an untreated hearing loss tend to be under salaried</td>
<td>26%</td>
<td>57%</td>
</tr>
</tbody>
</table>

Base: Step2 : Hearing loss, no hearing aid =404/ hearing aid n=380
Social costs of mental health problems in General: Example UK

Mental health 'costs UK billions'
By Adam Brimelow
BBC News, Health Correspondent

Mental health problems cost British businesses an average of £1,000 a year for every employee, researchers say.

The Sainsbury Centre for Mental Health said the overall annual cost to employers, including time off work and lost productivity, is nearly £26bn.

It says most firms vastly underestimate the problem, but they could make big savings with a few simple steps.

The Federation of Small Businesses said it was harder for firms with fewer resources to put policies in place.
**Health problems**: Hearing aid owners have a lower risk of being depressive and 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>Probabilities of depressive disorder %</th>
<th>Hearing aid</th>
<th>Top 50% hearing loss, no hearing aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>93%</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>85%</td>
<td>16%</td>
<td>15%</td>
</tr>
<tr>
<td>81%</td>
<td>21%</td>
<td>31%</td>
</tr>
<tr>
<td>75%</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>48%</td>
<td>39%</td>
<td>29%</td>
</tr>
</tbody>
</table>

**Dementia symptom:**
Getting more forgetful in the last year?

<table>
<thead>
<tr>
<th>Probabilities of dementia symptom</th>
<th>Hearing aid</th>
<th>Top 50% hearing loss, no hearing aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, much more</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Yes, somewhat more</td>
<td>50%</td>
<td>58%</td>
</tr>
<tr>
<td>No</td>
<td>42%</td>
<td>33%</td>
</tr>
</tbody>
</table>

Base: hearing aid n=454 / no hearing aid =98

*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).
Social costs of „Burnouts“ is in the daily press: Example Switzerland

Mentally and physically exhausted people cost CHF 4.2 billions/year in Switzerland

Source: CH-Blick; 13.4.2012
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.

*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: Top 50% n=141 / hearing aid n=391
# Additional information

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Top 50% hearing loss, no hearing aid</th>
<th>Hearing aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>-44 years</td>
<td>31%</td>
<td>13%</td>
</tr>
<tr>
<td>45-64 years</td>
<td>44%</td>
<td>27%</td>
</tr>
<tr>
<td>64+ years</td>
<td>25%</td>
<td>60%</td>
</tr>
</tbody>
</table>
3. Analysis of hearing aid owners
Hearing aid ownership and usage
Low adoption rates within mild 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>(6%)</td>
<td>78%*</td>
</tr>
<tr>
<td>Severe</td>
<td>(12%)</td>
<td>65%</td>
</tr>
<tr>
<td>Moderate</td>
<td>(36%)</td>
<td></td>
</tr>
<tr>
<td>Mild</td>
<td>(45%)</td>
<td></td>
</tr>
</tbody>
</table>

*combined “severe” and “profound” because n is too small

Base: n=1’320
Sums can differ from 100% due to rounding
50% of the currently owned HAs were acquired in 2010 or later

Age of currently owned HAs (Mean):
2012: 4.1 years

HA-owner, n=656
48% are first time HA users – non first time users kept their HAs for 4 years on average

Current HAs = first HAs?

- Yes: 52%
- No: 48%

How many years did you own your previous HAs?

- 1-3 years: 14%
- 4 years: 43%
- 5 years: 24%
- 7-10 years: 12%
- 11 years or longer: 5%

Age of HA before it has been replaced:
2012: 4 years (median)
Monaural-binaural treatment by purchase date

<table>
<thead>
<tr>
<th>Year of purchase</th>
<th>% ownership of binaural hearing aids / Base=All owners</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-2013</td>
<td>84%</td>
</tr>
<tr>
<td>2009-2010</td>
<td>82%</td>
</tr>
<tr>
<td>2008 or earlier</td>
<td>82%</td>
</tr>
</tbody>
</table>
91% received some kind of 3rd party reimbursement. Information deficit non-owners: only 36% know whether government/insurance would pay

**Owners:** Was any part or all of your hearing aid(s) paid for by a third party? (Insurance, Government, …)

- Yes, completely: 6%
- Yes, partly: 31%
- No: 60%
- don't know: 3%

**Non-owners:** Based on your current knowledge, would any part or all of your hearing aid(s) be paid for by a third party? (Insurance, Government, …)

- Yes: 48%
- No: 16%
- don't know: 36%

HA-owner, n=656
HA-non-owners, n=664
On average, HAs are worn 9.2 hours a day

How many hours a day are HA worn?

HA worn:
Mean: 9.2 hours/day

In the drawer (0 hours):
All HA owners: 13%
HA from offentlig høreklinik: 15%
HA from privat høreapparatbutik: 8%

HA-owner, n=656
Hearing aids in the drawer

<table>
<thead>
<tr>
<th>Country</th>
<th>Worn 0 hours/day</th>
<th>Worn 0-1 hours/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAP</td>
<td>12%</td>
<td>29%</td>
</tr>
<tr>
<td>NOR</td>
<td>10%</td>
<td>24%</td>
</tr>
<tr>
<td>DEN</td>
<td>13%</td>
<td>20%</td>
</tr>
<tr>
<td>UK</td>
<td>8%</td>
<td>19%</td>
</tr>
<tr>
<td>SUI</td>
<td>4%</td>
<td>16%</td>
</tr>
<tr>
<td>ITA</td>
<td>7%</td>
<td>15%</td>
</tr>
<tr>
<td>GER</td>
<td>4%</td>
<td>13%</td>
</tr>
<tr>
<td>FRA</td>
<td>3%</td>
<td>7%</td>
</tr>
</tbody>
</table>
79% of the currently owned HAs 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: 55%
- once: 24%
- 2-3 times: 15%
- 4-5 times: 4%
- more often: 2%

HA-owner, n=656
Awareness and importance of wireless technology
Only 1 out of 5 hearing aid owners uses wireless technology

Wireless Technology

Have you ever heard of wireless technology in connection with hearing aids?

- All HA owners (n=656)
  - Yes, I use wireless technology on my hearing aids: 17%
  - Yes, have heard of it but don’t use it: 43%
  - No, have never heard of wireless technology in connection with HAs: 40%

- Up to 44 y.o. (n=63)
  - Yes, I use wireless technology on my hearing aids: 17%
  - Yes, have heard of it but don’t use it: 44%
  - No, have never heard of wireless technology in connection with HAs: 39%

- 45-64 y.o. (n=282)
  - Yes, I use wireless technology on my hearing aids: 18%
  - Yes, have heard of it but don’t use it: 41%
  - No, have never heard of wireless technology in connection with HAs: 41%

- 65+ y.o. (n=311)
  - Yes, I use wireless technology on my hearing aids: 16%
  - Yes, have heard of it but don’t use it: 44%
  - No, have never heard of wireless technology in connection with HAs: 40%

Importance of wireless technology in connection with hearing aids?

- All HA owners (n=656)
  - Very important: 20%
  - Somewhat important: 35%
  - Rather unimportant: 37%
  - Very unimportant: 7%

- Up to 44 y.o. (n=63)
  - Very important: 19%
  - Somewhat important: 29%
  - Rather unimportant: 31%
  - Very unimportant: 21%

- 45-64 y.o. (n=282)
  - Very important: 23%
  - Somewhat important: 38%
  - Rather unimportant: 35%
  - Very unimportant: 4%

- 65+ y.o. (n=311)
  - Very important: 19%
  - Somewhat important: 36%
  - Rather unimportant: 39%
  - Very unimportant: 5%
Overall satisfaction with HA: Highest satisfaction for the following groups: **BTEs**, purchased 2010 or after, worn more than 8 hrs/day, purchased at privat høreapparatbutik vs. offentlig høreklinik (a private HA distributor vs. Hearing center)

<table>
<thead>
<tr>
<th>Category</th>
<th>Total HA-user (n=656)</th>
<th>BTE (n=423)</th>
<th>ITE (n=60)</th>
<th>ITC (n=139)</th>
<th>2010 or after (n=312)</th>
<th>2009 or earlier (n=318)</th>
<th>HA worn up to 4 hrs/day (n=155)</th>
<th>HA worn 4-8 hrs/day (n=129)</th>
<th>HA worn more than 8 hrs/day (n=372)</th>
<th>Offentlig hørelinik (n=312)</th>
<th>Privat høreapparatbutik (N=268)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
<tr>
<td>% Satisfied</td>
<td>70%</td>
<td>75%</td>
<td>65%</td>
<td>64%</td>
<td>77%</td>
<td>66%</td>
<td>36%</td>
<td>79%</td>
<td>82%</td>
<td>68%</td>
<td>75%</td>
</tr>
<tr>
<td>very dissatisfied</td>
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<td>dissatisfied</td>
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<tr>
<td>somewhat dissatisfied</td>
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<td>neutral</td>
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<tr>
<td>somewhat satisfied</td>
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<tr>
<td>satisfied</td>
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<tr>
<td>very satisfied</td>
<td></td>
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</tbody>
</table>
Overall Satisfaction with HA: Country comparison

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall satisfaction</td>
<td>70%</td>
<td>77%</td>
<td>72%</td>
<td>80%</td>
<td>(74%)</td>
</tr>
</tbody>
</table>

© Anovum 2012 - EuroTrak 2012
The majority is satisfied with their hearing aid

Overall satisfaction with HA

<table>
<thead>
<tr>
<th>Country</th>
<th>n</th>
<th>% very dissatisfied</th>
<th>% dissatisfied</th>
<th>% somewhat dissatisfied</th>
<th>% neutral</th>
<th>% somewhat satisfied</th>
<th>% satisfied</th>
<th>% very satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>514</td>
<td>1</td>
<td>5</td>
<td>10</td>
<td>19</td>
<td>46</td>
<td>19</td>
<td>84%</td>
</tr>
<tr>
<td>France</td>
<td>502</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>7</td>
<td>11</td>
<td>17</td>
<td>80%</td>
</tr>
<tr>
<td>Germany</td>
<td>500</td>
<td>2</td>
<td>3</td>
<td>15</td>
<td>26</td>
<td>35</td>
<td>14</td>
<td>77%</td>
</tr>
<tr>
<td>UK</td>
<td>501</td>
<td>7</td>
<td>3</td>
<td>8</td>
<td>9</td>
<td>22</td>
<td>16</td>
<td>72%</td>
</tr>
<tr>
<td>Norway</td>
<td>691</td>
<td>3</td>
<td>4</td>
<td>11</td>
<td>11</td>
<td>14</td>
<td>14</td>
<td>72%</td>
</tr>
<tr>
<td>Italy</td>
<td>510</td>
<td>3</td>
<td>7</td>
<td>20</td>
<td>40</td>
<td>24</td>
<td>6</td>
<td>70%</td>
</tr>
<tr>
<td>Japan</td>
<td>450</td>
<td>5</td>
<td>12</td>
<td>20</td>
<td>27</td>
<td>21</td>
<td>14</td>
<td>36%</td>
</tr>
</tbody>
</table>

Source: EuroTrak / JapanTrak

% satisfied

- Switzerland: 84%
- France: 80%
- Germany: 77%
- UK: 72%
- Norway: 72%
- Italy: 70%
- Japan: 36%
Satisfaction with current HA

Dispenser
- Professionalism of dispenser
- Quality of dispenser’s counseling
- Quality of service during hearing aid fitting period
- Quality of service after purchase

Listening situation
- Conversation with one person
- Watching TV
- Listening to Music
- Conversation in small groups
- On the telephone
- Conversation in large groups
- Leisure activities
- Use in noisy situations
- Understanding a lecture in a large public place

Sound quality signal process
- Clearness of tone and sound
- Richness or fidelity of sound
- Natural sounding
- Comfort with loud sounds

Product features
- Ease of changing battery
- Reliability
- Visibility to others
- Value (performance versus money spent)
- Overall fit/Comfort
- Battery life
- Managing whistling/feedback/buzzing

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

HA-owner, n=656
Satisfaction with current HA: privat høreapparatbutik vs. offentlig hørelinik (private distributor vs. Hearing center)

% satisfied

Dispenser

Listening situation

Sound quality signal process.

Product features

Offentlig hørelinik (N=312) — Privat høreapparatbutik (N=268)
Additional Information

Degree of HL vs. public/private

- **Total**:
  - Profound: 8%
  - Severe: 21%
  - Moderate: 50%
  - Mild: 21%

- **Offentlig hørelinke/hospital**:
  - Profound: 12%
  - Severe: 21%
  - Moderate: 47%
  - Mild: 20%

- **Privat høreapparatbutik**:
  - Profound: 5%
  - Severe: 21%
  - Moderate: 53%
  - Mild: 22%
Overall satisfaction with hearing aids

<table>
<thead>
<tr>
<th>Mild-moderate hearing loss</th>
<th>Offentlig høreelkinik</th>
<th>Privat høreapparatbutik</th>
</tr>
</thead>
<tbody>
<tr>
<td>70% (n=200)</td>
<td></td>
<td>76% (n=96)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Severe-profound hearing loss</th>
<th>Offentlig høreelkinik</th>
<th>Privat høreapparatbutik</th>
</tr>
</thead>
<tbody>
<tr>
<td>60% (n=198)</td>
<td></td>
<td>76% (n=63)</td>
</tr>
</tbody>
</table>
Satisfaction with current HA: privat høreapparatbutik vs. offentlig høreklinik: Mild-moderate HL

% satisfied

![Graph showing satisfaction levels for different areas related to hearing aids.](image)

- Dispenser
- Listening situation
- Sound quality signal process
- Product features

- mild-moderate AND Offentlig høreklinik (n=200)
- mild-moderate AND Privat høreapparatbutik (n=96)
Satisfaction with current HA: privat høreapparatbutik vs. offentlig høreklinik: Severe-profound HL

% satisfied

- **Dispenser**
- **Listening situation**
- **Sound quality signal process.**
- **Product features**

- **severe-profound AND Offentlig høreklinik (n=195)**
- **severe-profound AND Privat høreapparatbutik (n=63)**
Positive impact of HAs
Significant positive impact of HAs on different aspects – especially communication effectiveness, relationships at home and participating in group activities have improved.
Impact of HAs is perceived more positive by patients with a Top 50% hearing loss in all aspects.
Additional information

% of HA owners feeling better/a lot better

- Offentlig hørelinik/hospital (n=282)
- Privat høreapparatbutik (n=245)
For the significant others, the situation has improved, since person in household/parent is wearing hearing aids.

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

- **Communication with Person X**: 1% a lot worse, 6% worse, 40% the same, 31% better, 21% a lot better
- **Social activities together with Person X**: 1% a lot worse, 6% worse, 51% the same, 26% better, 15% a lot better
- **Personal relationship with Person X**: 1% a lot worse, 3% worse, 72% the same, 13% better, 10% a lot better
- **Quarrels/disputes with Person X**: 2% a lot worse, 5% worse, 77% the same, 9% better, 7% a lot better

Someone in HH / parent have HA, n=654
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 HA owners.

### Hearing loss characteristics: Owners compared to non-owners

<table>
<thead>
<tr>
<th></th>
<th>% HA Owner (n=656)</th>
<th>%HA-Non-owner Low 50% HL</th>
<th>%HA-Non-owner Top 50% HL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ears impaired</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unilateral loss</td>
<td>15%</td>
<td>46%</td>
<td>37%</td>
</tr>
<tr>
<td>Bilateral loss</td>
<td>85%</td>
<td>54%</td>
<td>63%</td>
</tr>
<tr>
<td></td>
<td>More similar hearing loss-structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perceived loss</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mild</td>
<td>21%</td>
<td>77%</td>
<td>34%</td>
</tr>
<tr>
<td>Moderate</td>
<td>48%</td>
<td>18%</td>
<td>51%</td>
</tr>
<tr>
<td>Severe</td>
<td>22%</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Profound</td>
<td>9%</td>
<td>2%</td>
<td>11%</td>
</tr>
</tbody>
</table>
Top 10 reasons for not having a hearing aid (I/II)

- Hearing loss not severe enough
  - Reason: 48
  - Somewhat a reason: 24
  - Not a reason: 28

- Hear well enough in most situations
  - Reason: 44
  - Somewhat a reason: 26
  - Not a reason: 30

- Uncomfortable
  - Reason: 29
  - Somewhat a reason: 25
  - Not a reason: 46

- They do not restore your hearing to normal
  - Reason: 25
  - Somewhat a reason: 25
  - Not a reason: 51

- Have hearing loss in only one ear
  - Reason: 35
  - Somewhat a reason: 14
  - Not a reason: 51

- Ear doctors opinion (ENT)
  - Reason: 38
  - Somewhat a reason: 9
  - Not a reason: 53

- Have tinnitus (ringing in ears)
  - Reason: 26
  - Somewhat a reason: 14
  - Not a reason: 60

- Have not had hearing tested yet
  - Reason: 27
  - Somewhat a reason: 13
  - Not a reason: 60

- They do not work well in noisy situations
  - Reason: 28
  - Somewhat a reason: 12
  - Not a reason: 60

- Bad design
  - Reason: 21
  - Somewhat a reason: 19
  - Not a reason: 61

Base: non owners Top 50% HL: n=145
## Less important reasons for not having a hearing aid (II/II)

<table>
<thead>
<tr>
<th>Reason</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have Sensor-neural hearing loss (nerve deafness)</td>
<td>21</td>
<td>16</td>
<td>63</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have hearing loss only with high pitch sounds</td>
<td>17</td>
<td>20</td>
<td>63</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Family doctors opinion (GP)</td>
<td>23</td>
<td>14</td>
<td>63</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Have hearing loss only with low frequency sounds</td>
<td>14</td>
<td>22</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Would be embarrassed to wear a hearing aid</td>
<td>16</td>
<td>16</td>
<td>68</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Have more serious priorities</td>
<td>18</td>
<td>14</td>
<td>68</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cannot afford a hearing aid</td>
<td>16</td>
<td>15</td>
<td>69</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Hearing Aid Dispenser/Audiologists opinion</td>
<td>22</td>
<td>8</td>
<td>70</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Do not admit I have a hearing loss in public</td>
<td>13</td>
<td>15</td>
<td>72</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have tried hearing aid and they do not work</td>
<td>19</td>
<td>8</td>
<td>73</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Another hearing aid owners opinion</td>
<td>8</td>
<td>16</td>
<td>76</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have vision or dexterity problems</td>
<td>15</td>
<td>6</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do not trust Hearing Aid Dispenser/Audiologist</td>
<td>7</td>
<td>11</td>
<td>83</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do not know where to get hearing aids</td>
<td>7</td>
<td>8</td>
<td>84</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hearing problem requires surgery</td>
<td>6</td>
<td>7</td>
<td>88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had surgery - hearing aids wont help</td>
<td>9</td>
<td>4</td>
<td>88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social / Family opinion such as child, spouse, friend</td>
<td>5</td>
<td>5</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

Base: non owners Top 50% HL: n=145
### Top 10 reasons for HA owners NOT using them

<table>
<thead>
<tr>
<th>Reason</th>
<th>Uncomfortable</th>
<th>Somewhat a reason</th>
<th>Not a reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have hearing loss only with low frequency sounds</td>
<td>72</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>Have hearing loss in only one ear</td>
<td>70</td>
<td>4</td>
<td>26</td>
</tr>
<tr>
<td>Have more serious priorities</td>
<td>63</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Bad design</td>
<td>58</td>
<td>35</td>
<td>7</td>
</tr>
<tr>
<td>Hearing loss not severe enough</td>
<td>53</td>
<td>31</td>
<td>16</td>
</tr>
<tr>
<td>Have tried hearing aid and they do not work</td>
<td>43</td>
<td>41</td>
<td>16</td>
</tr>
<tr>
<td>They do not work well in noisy situations</td>
<td>43</td>
<td>41</td>
<td>16</td>
</tr>
<tr>
<td>They do not restore your hearing to normal</td>
<td>31</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Hear well enough in most situations</td>
<td>31</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Uncomfortable</td>
<td>25</td>
<td>13</td>
<td>11</td>
</tr>
</tbody>
</table>
Acquiring intentions
14% of non-owners intend to get a hearing aid within the next year. Reacquiring intention is higher than first-acquiring intention.

### Acquiring intention hearing impaired in %

<table>
<thead>
<tr>
<th></th>
<th>Owner</th>
<th>Non-owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the next 6 months</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>In about 4 years</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>not within the next 7 years</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>In about a year</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>In about 5 years</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>In about 6 years</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>In about 2 years</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>In about 3 years</td>
<td>38</td>
<td>54</td>
</tr>
<tr>
<td>In about 4 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In about 5 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In about 6 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In about 7 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every year</td>
<td>1</td>
</tr>
<tr>
<td>Every other year</td>
<td>6</td>
</tr>
<tr>
<td>Every third year</td>
<td>11</td>
</tr>
<tr>
<td>Every fourth year – or more</td>
<td>34</td>
</tr>
<tr>
<td>Don't know</td>
<td>47</td>
</tr>
</tbody>
</table>

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The most important influencing factors are worsening hearing loss, significant others, ENT and the fact that it’s for free

**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**: 61% (Owner) / 75% (Non-owner)
- **Spouse, relative, child, friend**: 45% (Owner) / 57% (Non-owner)
- **ENT/ Ear Doctor**: 41% (Owner) / 38% (Non-owner)
- **Free due to coverage by Insurance / Received hearing aid free of charge**: 28% (Owner) / 39% (Non-owner)
- **GP / Family doctor**: 18% (Owner) / 28% (Non-owner)
- **Hearing aid dispenser / Audiologist**: 20% (Owner) / 25% (Non-owner)
- **Price of hearing aid**: 4% (Owner) / 19% (Non-owner)
- **Another hearing aid owner (word of mouth)**: 19% (Owner) / 14% (Non-owner)
- **Safety concerns**: 3% (Owner) / 12% (Non-owner)
- **Co-worker or boss**: 9% (Owner) / 7% (Non-owner)
**EHIMA**
European Hearing Instrument Manufacturers Association

**EHIMA**
Soeren Hougaard
EHIMA secretary general
Phone: (+45) 4045 7135
Email: sh@ehima.com

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E-Mail christian.egger@anovum.com
www.anovum.com
APPENDIX
Demographics (1) Hearing instrument adoption rates and populations

<table>
<thead>
<tr>
<th>Profiles: Categories add to 100%*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Age recoded</td>
</tr>
<tr>
<td>1 - 14</td>
</tr>
<tr>
<td>15 - 24</td>
</tr>
<tr>
<td>25 - 34</td>
</tr>
<tr>
<td>35 - 44</td>
</tr>
<tr>
<td>45 - 54</td>
</tr>
<tr>
<td>55 - 64</td>
</tr>
<tr>
<td>65 - 74</td>
</tr>
<tr>
<td>74+</td>
</tr>
<tr>
<td>Type of household</td>
</tr>
<tr>
<td>single household</td>
</tr>
<tr>
<td>Couple, no kids</td>
</tr>
<tr>
<td>Couple with kid(s)</td>
</tr>
<tr>
<td>Single mom/dad with kid(s)</td>
</tr>
<tr>
<td>Retirement home, hospital etc.</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

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

Profiles: Categories add to 100%*

<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 (alone or together with someone)</td>
<td>7267</td>
<td>13.2%</td>
<td>49.8%</td>
<td>50.2%</td>
<td>67.4%</td>
<td>74.5%</td>
</tr>
<tr>
<td>The spouse of the head of the household</td>
<td>2272</td>
<td>10.6%</td>
<td>49.6%</td>
<td>16.2%</td>
<td>17.0%</td>
<td>18.7%</td>
</tr>
<tr>
<td>Daughter/son of head of household</td>
<td>3585</td>
<td>3.0%</td>
<td>15.6%</td>
<td>27.7%</td>
<td>12.6%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Other Person</td>
<td>794</td>
<td>6.2%</td>
<td>55.1%</td>
<td>5.9%</td>
<td>3.1%</td>
<td>4.2%</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>5112</td>
<td>7.4%</td>
<td>34.2%</td>
<td>46.7%</td>
<td>37.4%</td>
<td>19.6%</td>
</tr>
<tr>
<td>Part time employed</td>
<td>635</td>
<td>8.5%</td>
<td>34.1%</td>
<td>5.7%</td>
<td>5.4%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Unemployed / not working</td>
<td>720</td>
<td>7.3%</td>
<td>37.9%</td>
<td>6.6%</td>
<td>4.9%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Retired under a disability pension scheme (fully or partly)</td>
<td>201</td>
<td>11.9%</td>
<td>46.5%</td>
<td>1.8%</td>
<td>1.9%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Early retired under an early retirement benefit scheme</td>
<td>944</td>
<td>14.0%</td>
<td>56.2%</td>
<td>8.0%</td>
<td>8.7%</td>
<td>11.3%</td>
</tr>
<tr>
<td>Retired (at the official retirement age)</td>
<td>2177</td>
<td>28.8%</td>
<td>62.7%</td>
<td>15.3%</td>
<td>35.1%</td>
<td>59.7%</td>
</tr>
<tr>
<td>Student / pupil / in training</td>
<td>1664</td>
<td>3.4%</td>
<td>22.0%</td>
<td>15.9%</td>
<td>6.6%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grundskole</td>
<td>1986</td>
<td>16.8%</td>
<td>55.0%</td>
<td>16.3%</td>
<td>22.6%</td>
<td>27.9%</td>
</tr>
<tr>
<td>Ungdomsuddannelse</td>
<td>974</td>
<td>5.3%</td>
<td>41.4%</td>
<td>9.1%</td>
<td>4.6%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Erhvervsuddannelse/mesterlære</td>
<td>2801</td>
<td>13.5%</td>
<td>48.9%</td>
<td>23.9%</td>
<td>29.1%</td>
<td>28.2%</td>
</tr>
<tr>
<td>Videregående uddannelse, kort - op til 3 år</td>
<td>1806</td>
<td>9.5%</td>
<td>50.7%</td>
<td>16.1%</td>
<td>12.7%</td>
<td>13.2%</td>
</tr>
<tr>
<td>Videregående uddannelse, mellemlang - 3-5 år</td>
<td>2310</td>
<td>10.1%</td>
<td>48.5%</td>
<td>20.5%</td>
<td>18.0%</td>
<td>18.2%</td>
</tr>
<tr>
<td>Videregående uddannelse, lang - mere end 5 år</td>
<td>981</td>
<td>9.8%</td>
<td>40.2%</td>
<td>8.7%</td>
<td>8.7%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Andet</td>
<td>593</td>
<td>9.6%</td>
<td>49.6%</td>
<td>5.3%</td>
<td>4.3%</td>
<td>4.3%</td>
</tr>
</tbody>
</table>

* Small sample sizes in some categories
**Work competitiveness:** 21% of hearing aid owners tend to think they receive a better compensation for their jobs than their peers (16% of hearing impaired non-owners).

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)

Unweighted Sample Size = 484
Work competitiveness: There is no clear difference in income between hearing aid owners and impaired non-owners.

Unweighted Sample Size = 455
Factors influencing satisfaction with current HA: Sound quality/signal processing is most important for overall satisfaction with HA

<table>
<thead>
<tr>
<th><strong>Dispenser</strong></th>
<th><strong>Listening situation</strong></th>
<th><strong>Sound quality</strong></th>
<th><strong>signal process.</strong></th>
<th><strong>Product features</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of service after purchase</td>
<td>Quality of service during hearing aid fitting period</td>
<td>Quality of dispenser's counselling</td>
<td>Professionalism of dispenser</td>
<td>Conversion with one person</td>
</tr>
<tr>
<td>Quality of service during fitting period</td>
<td>Quality of dispenser's counselling</td>
<td>Professionalism of dispenser</td>
<td>Conversion with one person</td>
<td>Leisure activities</td>
</tr>
<tr>
<td>Quality of service during fitting period</td>
<td>Quality of dispenser's counselling</td>
<td>Professionalism of dispenser</td>
<td>Conversion with one person</td>
<td>Conversation in small groups</td>
</tr>
<tr>
<td>Quality of dispenser's counselling</td>
<td>Professionalism of dispenser</td>
<td>Conversion with one person</td>
<td>Use in noisy situations</td>
<td>Watching TV</td>
</tr>
<tr>
<td>Professionalism of dispenser</td>
<td>Conversion with one person</td>
<td>Use in noisy situations</td>
<td>Watching TV</td>
<td>Listening to Music</td>
</tr>
<tr>
<td><strong>Influence on overall satisfaction with HA</strong></td>
<td><strong>Influence on overall satisfaction with HA</strong></td>
<td><strong>Influence on overall satisfaction with HA</strong></td>
<td><strong>Influence on overall satisfaction with HA</strong></td>
<td><strong>Influence on overall satisfaction with HA</strong></td>
</tr>
<tr>
<td>0.52</td>
<td>0.47</td>
<td>0.45</td>
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<tr>
<td>0.72</td>
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<tr>
<td>0.40</td>
<td>0.40</td>
<td>0.40</td>
<td>0.40</td>
<td>0.40</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/fidelity of sound is the most important criterion for satisfaction.