



Summary

EuroTrak GERMANY 2012

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









Summary 1. Introduction

- EuroTrak Germany 2012 was designed and executed by Anovum (Zurich) on behalf of the European Hearing Instrument Manufacturers Association (EHIMA).
- Sample sizes Germany 2012:

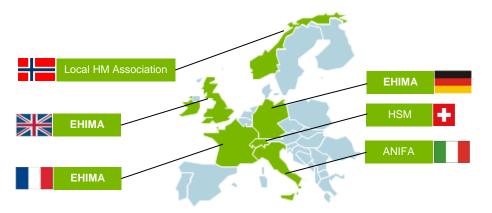
Representative sample (sample 1): n=13'922 people

- Hearing impaired (sample 2): n=1'364 people

Hearing impaired non-owners: n=864 people with hearing loss (**HL**)

• HA owners: n=500 people with hearing aid (**HA**)

EuroTrak Germany 2012 is part of the EuroTrak studies:













Summary 2. Market overview

- Stated hearing loss prevalence
 - Total: 12.5% (18+: 14.3%).
 - Binaural hearing loss: HA owners: 78%, HA non-owners: 58%.
 - Tinnitus prevalence 29% (self stated, sometimes or permanently).
 - Hearing Tests: 47% had a hearing test in the last 5 years.
- Hearing aid adoption rate (HA penetration)
 - Total: 34.0% (2009: 31.8%).
 - Total age group 18+: 34.1 % (2009: 31.8%).
 - 66% of HA owners have binaural treatment. Trend rising (2009: 60%).
- The route to the hearing aid
 - 80% of the hearing impaired discussed hearing loss with an ENT doctor or family doctor.
 - 48% got hearing aids recommended from the ENT or family doctor (drop out rate = 40%).
 - 73% of the GP consultations referred to an ENT. 11% recommended no action.
 - 31% of ENT consultations referred to a Hörgeräte-Akustiker, 31% recommended to get a hearing aid, 44% 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
 - People with hearing aids tend to have a higher personal income
 - Hearing aid owners have a much 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

- 93% received some kind of 3rd party reimbursement.
- 61% of the currently owned HAs were fitted in 2009 or later.
- The average age of the currently owned HAs is 3.0 years.
- The median age of hearing aids before replacement is 6 years.
- On average, HAs are worn 8.0 hours a day.
- 47% of hearing aid owners have never heard of wireless technology in connection with hearing aids. Only 18% of the older (65y+) rate wireless technology as very important but 28% of the younger (up to 44y).

Satisfaction with HAs

- 77% 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.

Positive impact of HAs

- Significant positive impact of HAs on different aspects – especially communication and sense of safety.







Summary 4. Analysis of hearing impaired non-owners

- Reasons not to own/use HAs
 - Information deficit non-owners: 53% don't know whether insurance would pay, 14% assume they don't pay.
 - The main reasons for not using hearing aids are that people say they do not restore hearing to normal, they hear well enough and that hearing aids do not work well in noisy situations.
 - 4% who own HAs don't use them at all; 13% use them less than one hour/day. Main reasons for this are:
 "They do not work well in noisy situations", "HAs do not restore hearing to normal" and "hearing loss is not severe enough".
- 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.
 - 13% of non-owners intend to get a hearing aid within the next year.
 - The most important influencing factors are worsening of hearing, ENT, significant others and Hörgeräte-Akustiker. Costs are also important, but only for the non-owners.







Results

EuroTrak Germany 2012

- 1. Introduction
- 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 new in 2012
- The route to the hearing aid: Drop-out rates and reasons for drop-outs new in 2012
- Potential social cost-savings due to the use of hearing aids: Work competitiveness, depressive and dementia symptoms new in 2012

3. Analysis of hearing aid owners

- Hearing aid ownership, lifetime new in 2012 and usage
- Awareness and importance of wireless technology new in 2012
- 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. Appendix

Demographics: Hearing instrument adoption rates and populations







1. Introduction







Objectives and organisation







Organisation of EuroTrak 2012

Organisation

- Principal of the project EuroTrak is the European Hearing Instrument Manufacturers Association [EHIMA].
 Members of EHIMA are: GN Resound, Oticon, Phonak, Siemens, Starkey and Widex [EHIMA Companies].
- 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.
- EHIMA approved the questionnaire in cooperation with Sergei Kochkin, Ph.D., Executive Director, Better Hearing Institute.

Use of the data

- The principal as well as the EHIMA 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 EHIMA 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 EuroTrak Germany/2012/n=[relevant sample size]"
- The principal and EHIMA 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=13'922** 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=500 hearing aid owners and n=864 hearing impaired non-owners









2. Market overview







Prevalence of hearing loss and adoption rate

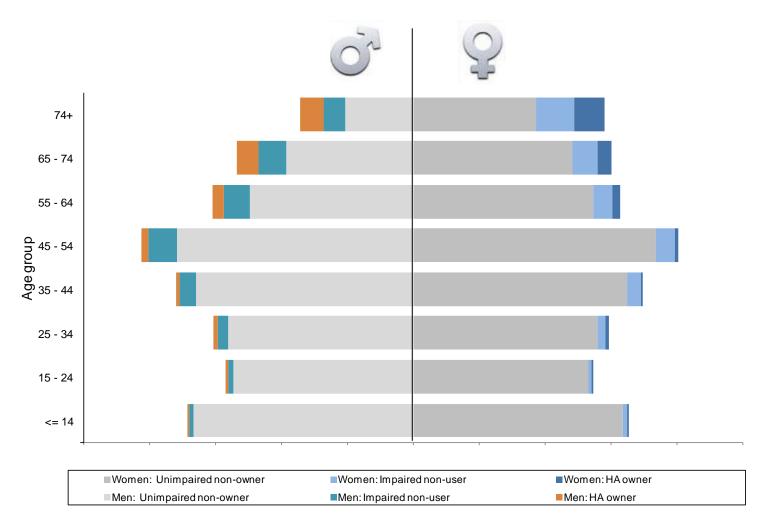








Hearing loss and hearing instrument ownership by gender/age



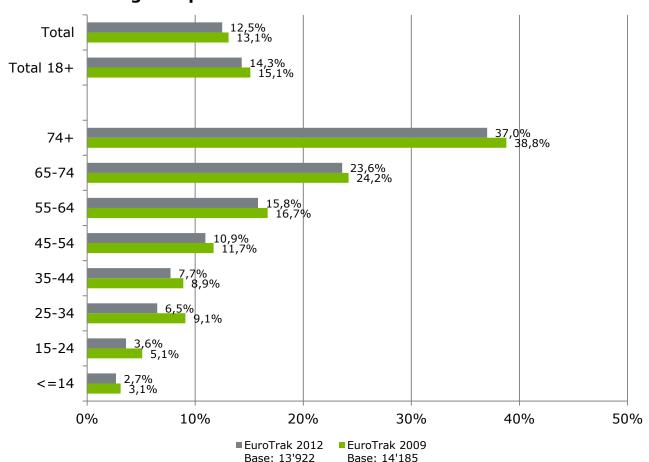






Hearing loss prevalence Germany 2012

% hearing loss prevalence

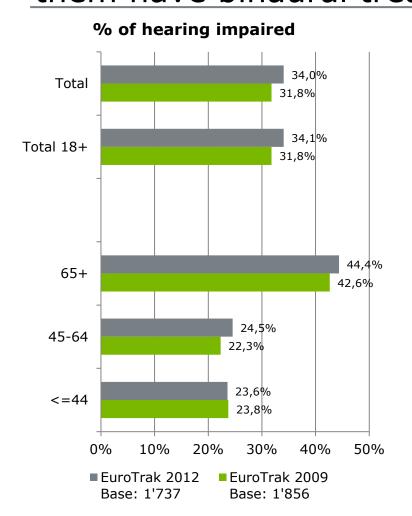


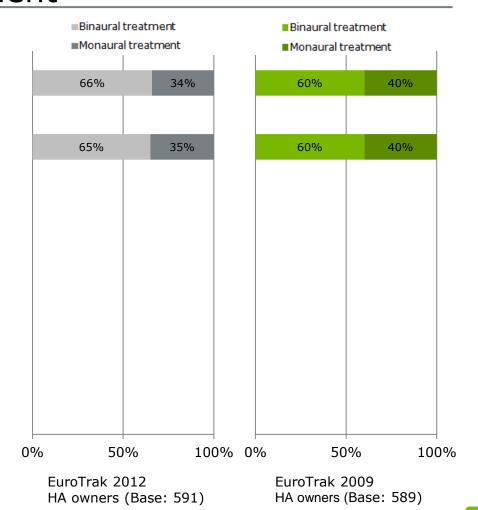






Hearing aid adoption rate Germany 2012 34% of hearing impaired have hearing aid(s), 66% of them have binaural treatment



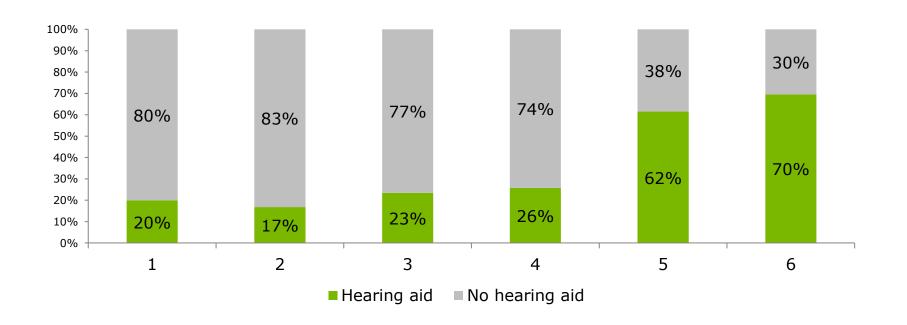








The more severe the hearing loss, the higher the adoption rate



Hearing loss 6-groups*

HA-non-owner, n=864 HA-owner, n=500

- Number of ears impaired (one or two)
- Stated hearing loss (Mild to Profound)
- Scores on 6 APHAB-EC like questions (Scaled 1-5)

^{*} 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:

When NOT using a hearing aid, how difficult is it for you to follow conversations in the presence of noise

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







Hearing loss

Hearing loss characteristics: Owners compared to non-owners

	HA-Non-owner 2012: n= 864 (2009: n= 805)	HA Owner 2012: n= 500 (2009: n= 503)	Hearing Aid Adoption (%)
Ears impaired (stated)			
Unilateral loss	42% <i>(43%)</i>	22% (25%)	23% (22%)
Bilateral loss	58% <i>(57%)</i>	78% <i>(75%)</i>	43% (39%)
Perceived loss			
Mild ⁺	42% (31%)	10% (6%)	11% (8%)
Moderate ⁺	43% <i>(50%)</i>	45% <i>(31%)</i>	36% (22%)
Severe ⁺	12% (15%)	29% <i>(43%)</i>	62% (62%)*
Profound ⁺	3% (4%)	16% (21%)	

n's are unweighted whereas the shown results are weighted * combined "severe" and "profound" because n is too small

2009: Schwach- Mässig-Stark-Sehr stark 2012: Leicht-Mittel-Schwer-Hochgradig

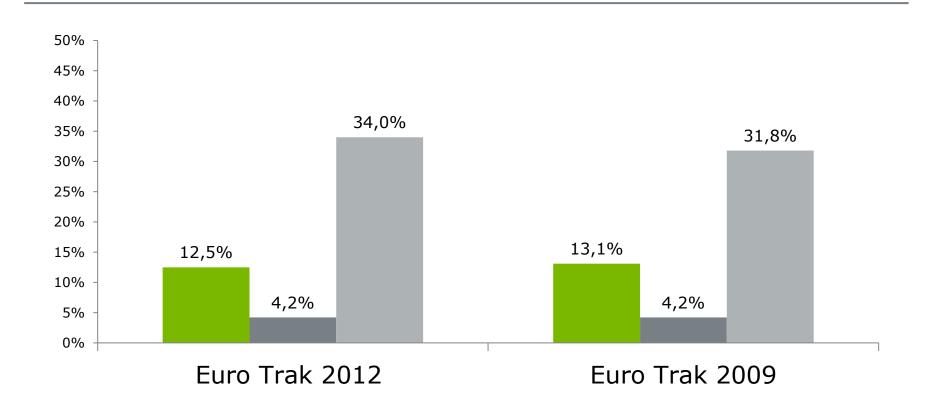








Overview hearing loss prevalence and hearing aid adoption



■ Hearing impaired (stated)
■ Adoption (% of population)
■ Adoption (% of stated impaired)









Hearing tests and prevalence of tinnitus

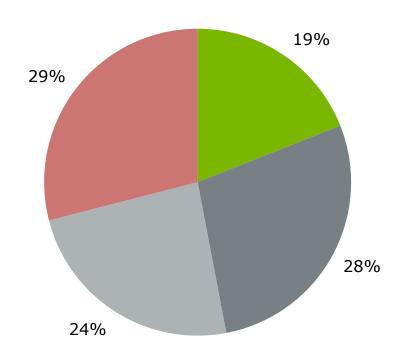




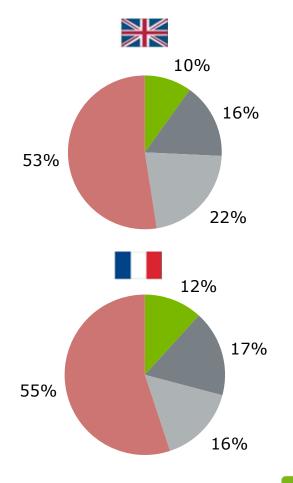


Close to one third of the population state their hearing has never been tested

- ■Yes, in the last 12 months ■Yes, in the last 1-5 years
- Yes, more than 5 years ago No, never





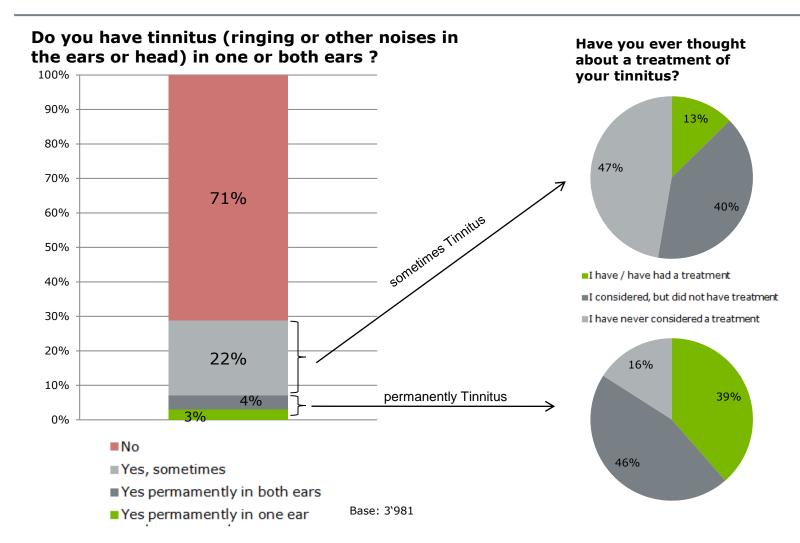








Prevalence of tinnitus









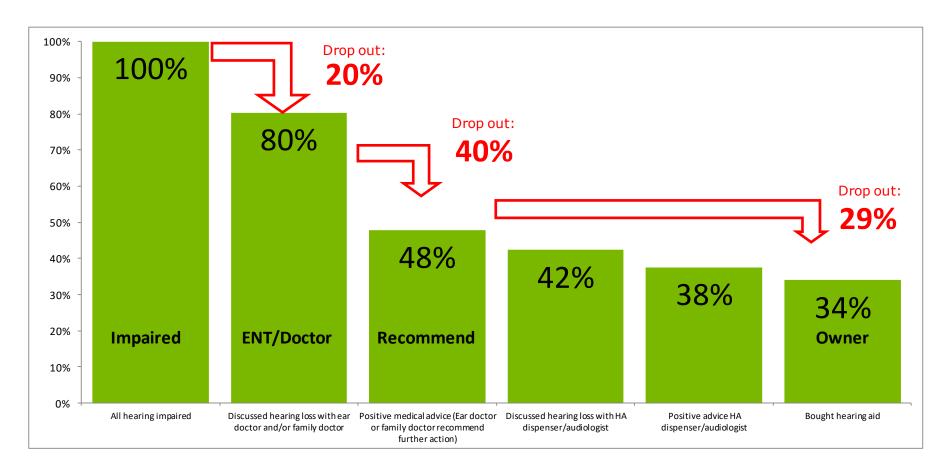
The route to the hearing aid: Drop-out rates and reasons for drop-outs







The route to the hearing aid: Overview



Base: n=1'364





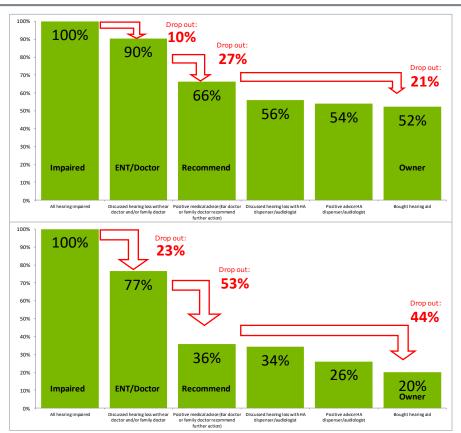




Much higher drop-out-rates for the lower hearing loss segments

Top 50% hearing loss*

Low 50% hearing loss*



Base: n=1'364

^{*} 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

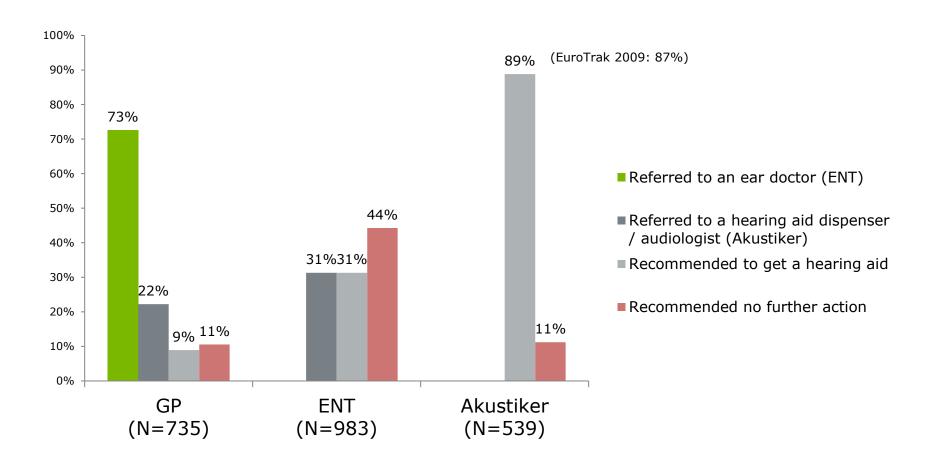
[→] People were segmented into 6 groups of same size (16.67% of all hearing impaired in the sample).







Recommendations by profession



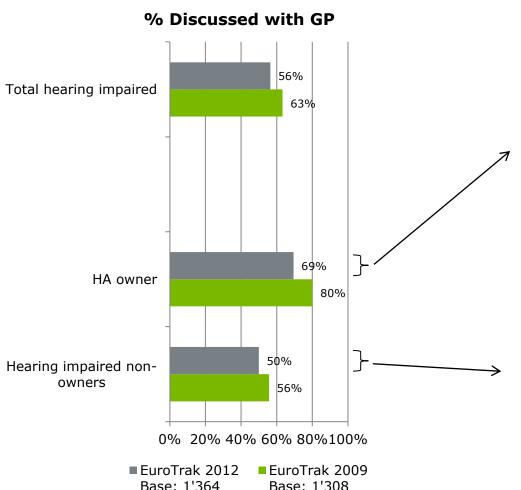




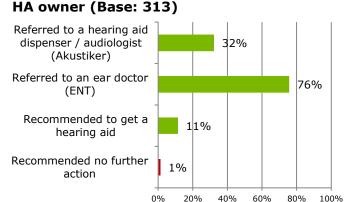


The route to the hearing aid: GP/Family doctor

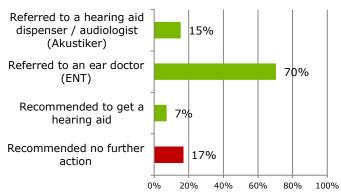
Have you discussed your hearing problem with your family doctor?



What did he/she recommend?



Impaired non-owner (Base: 422)





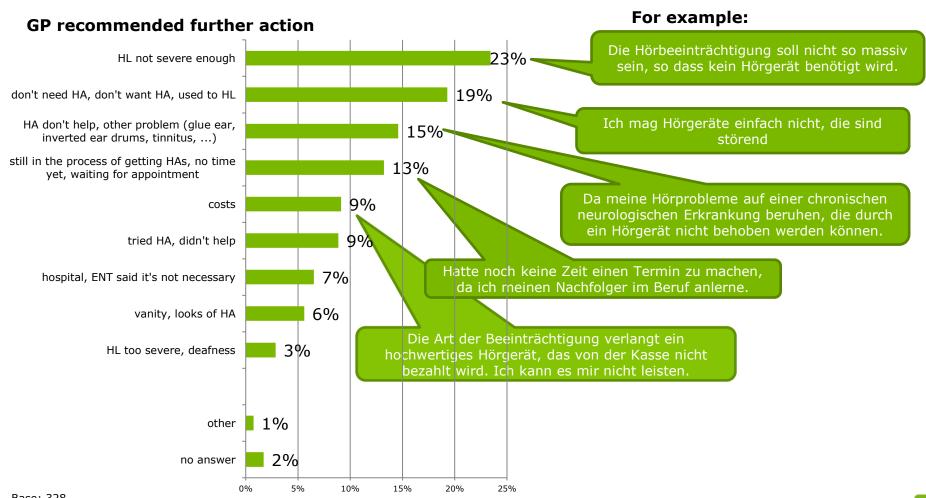






Non-owners: Reasons for not owning a HA

If GP recommended further action (open ended question)



Base: 328



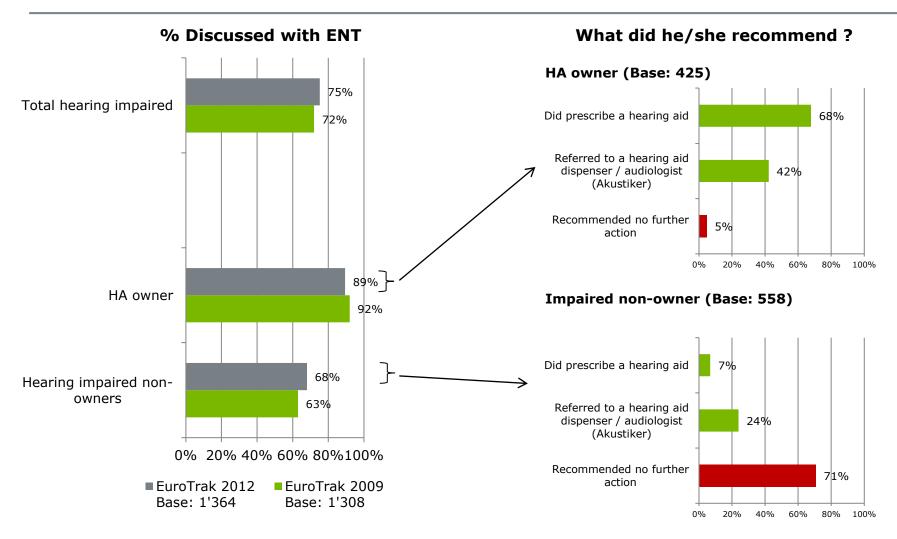






The route to the hearing aid: ENT

Have you discussed your hearing problem with an ear doctor (ENT)?



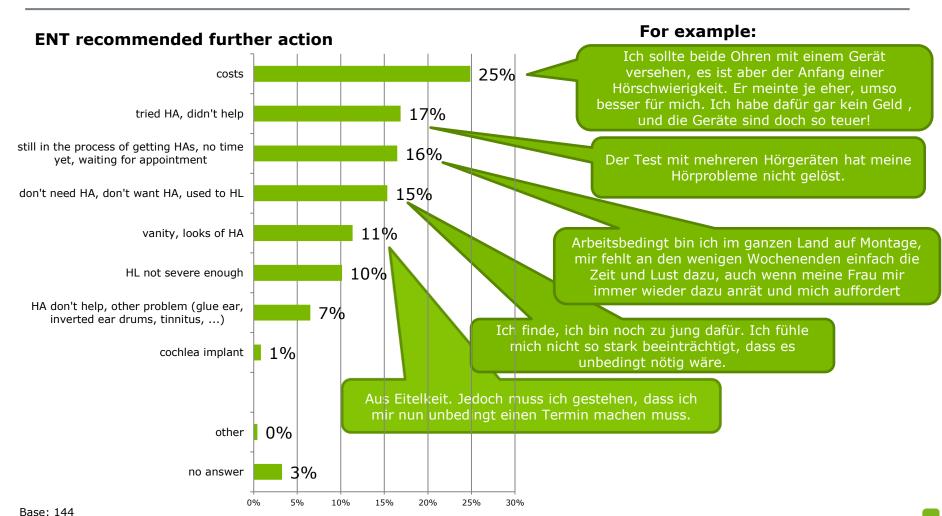






Non-owners: Reasons for not owning a HA

If ENT recommended further action (open ended question)



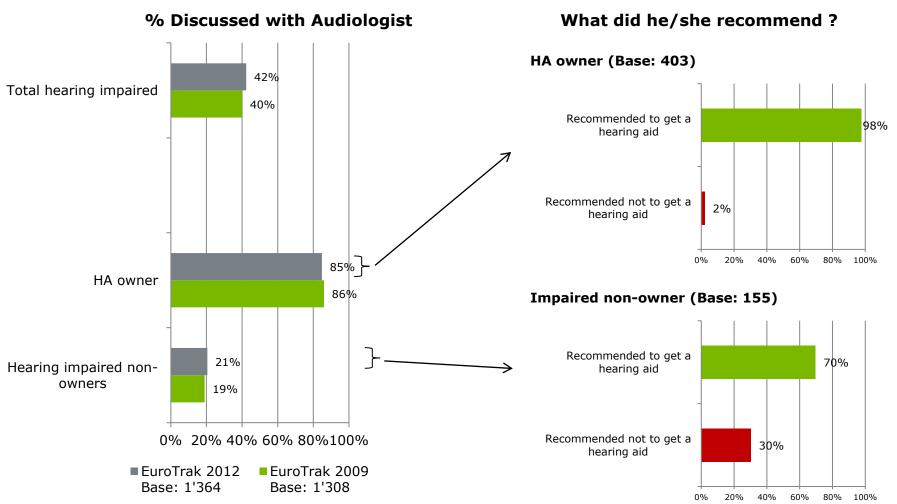






The route to the hearing aid: Akustiker

Have you discussed your hearing problem with a Hearing Aid Dispenser/Audiologist?



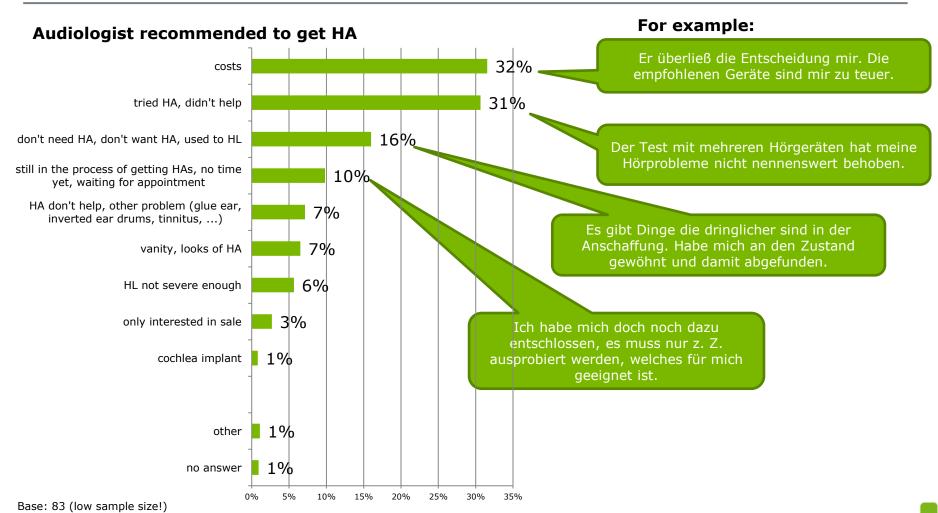






Non-owners: Reasons for not owning a HA

If Audiologist recommended to get HA (open ended question)









Potential social cost-savings due to the use of hearing aids: Work competitiveness, depressive and dementia symptoms



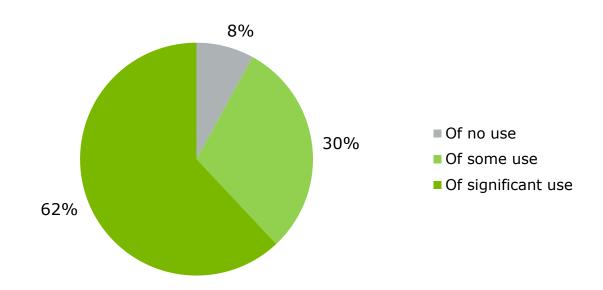






Work competitiveness: 92% of the working hearing aid owners state their hearing aid(s) are useful on their job.

How useful are your hearing aids on your job?



Base: N=209





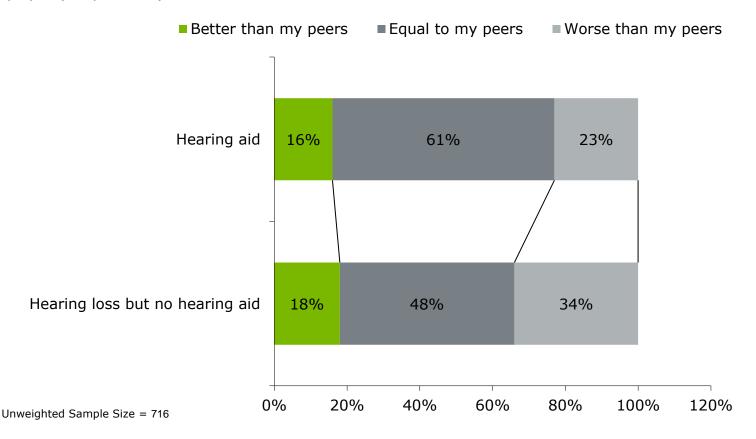




Work competitiveness: 34% of impaired people without hearing aid tend to think they receive a worse compensation for their jobs than their peers (23% of hearing aid owners)

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)









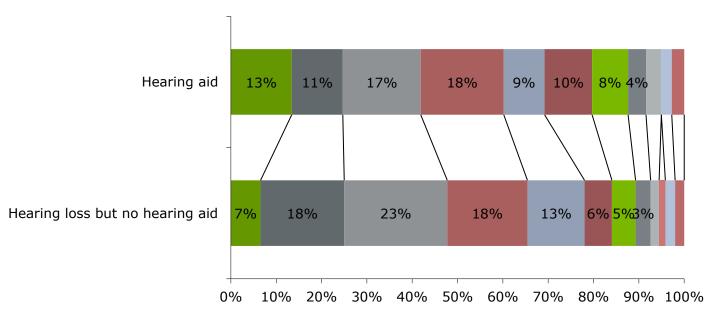


Work competitiveness: People with hearing aid(s) tend to have a little higher personal income compared to impaired non-owners. Exception: There are a bit more in the lowest income category

Personal income

Base: Employed (full/part time)





Base: Employed (full/part time)

Unweighted Sample Size = 658

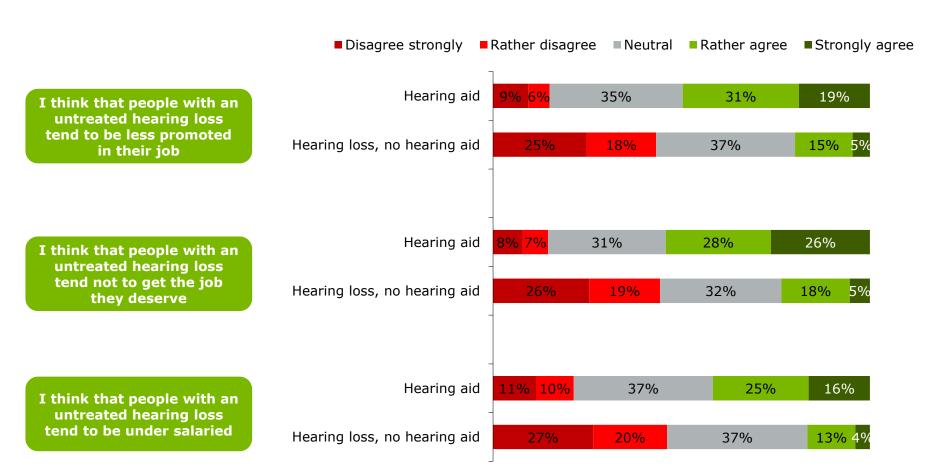








Work competitiveness: People with hearing aids recognize that hearing aids increase the chance of hearing impaired to get promoted, to get the right job and to get more salary



Base: Hearing loss, no hearing aid =648/ hearing aid n=415

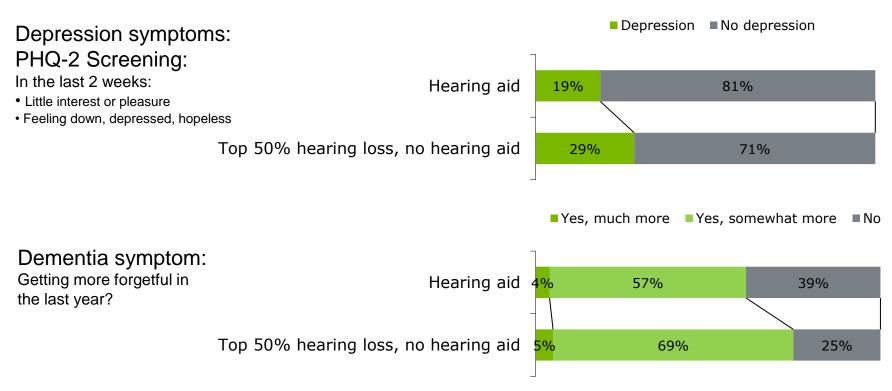








Health problems: Hearing aid owners have a lower risk of being depressed (PHQ-2 Screening) and a lower risk of being forgetful compared to impaired non-owners with comparable hearing loss (Top50% hearing loss group*)



Base: hearing aid n=341 / no hearing aid =151

*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







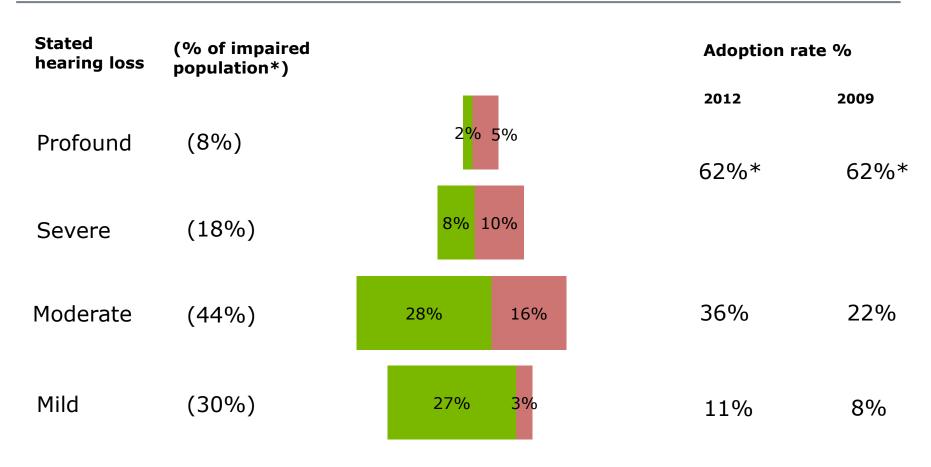
Hearing aid ownership and usage







Low adoption rates within mild and moderate hearing loss



Base: n=1'364

Sums can differ from 100% due to rounding

No hearing aidHearing aid



^{*} combined "severe" and "profound" because n is too small

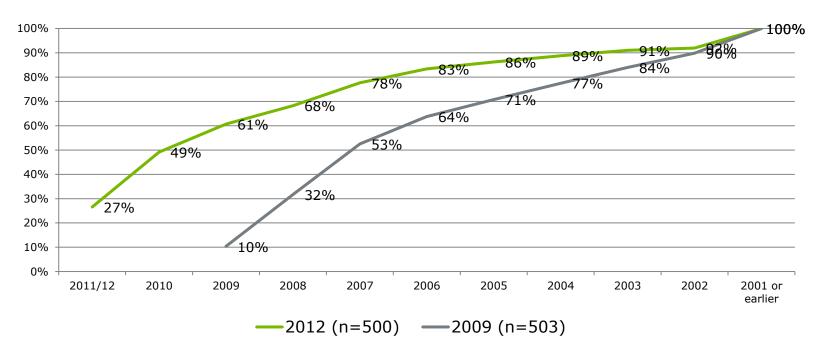






61% of the currently owned HAs were fitted in 2009 or later

Year of purchase



Age of currently owned HAs (Mean):

2012: 3.0 years 2009: 3.4 years



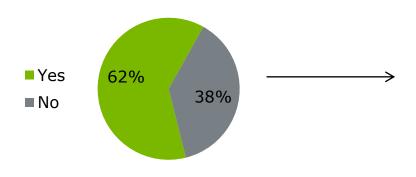






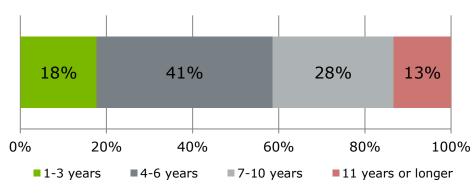
54% are first time HA users – non first time users kept their HAs for 6 years on average

Current HAs = first HAs?



Base: n=500

How many years did you own your previous HAs?



Base: n=167

Age of HA before it has been replaced: 2012: 6 years (median)

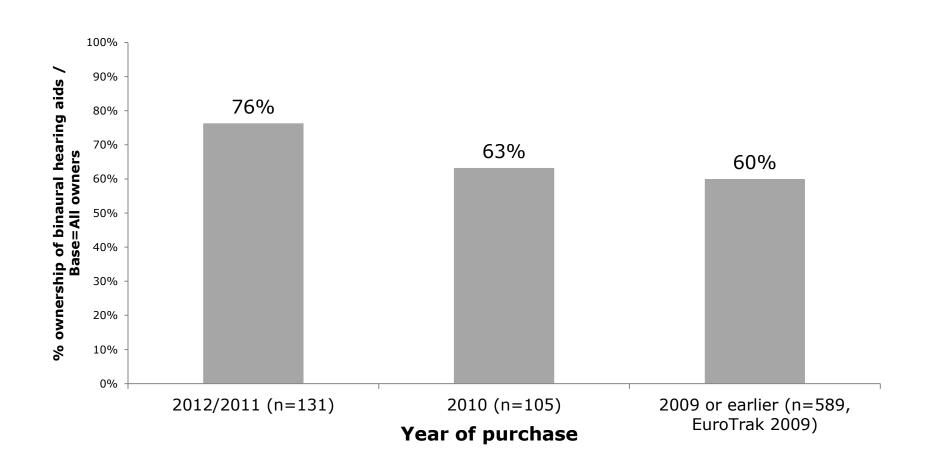








Monaural-binaural treatment by purchase date

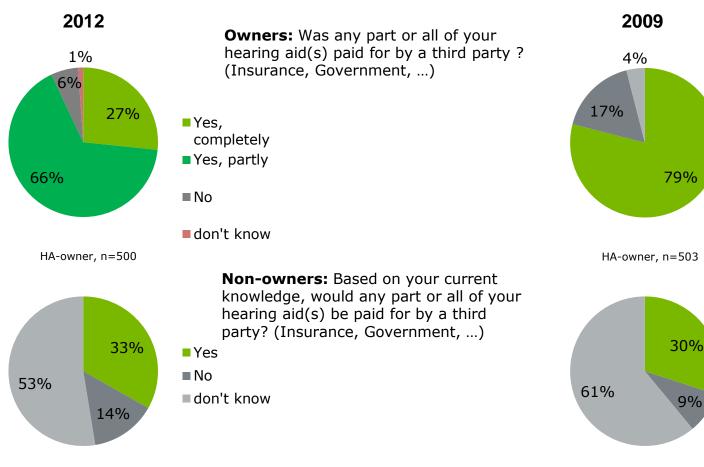


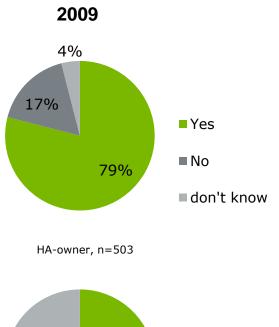






93% received some kind of 3rd party reimbursement Information deficit non-owners: only 33% know whether insurance would pay





HA-non-owners, n=864 HA-non-owners, n=805



don't know

Yes

■ No

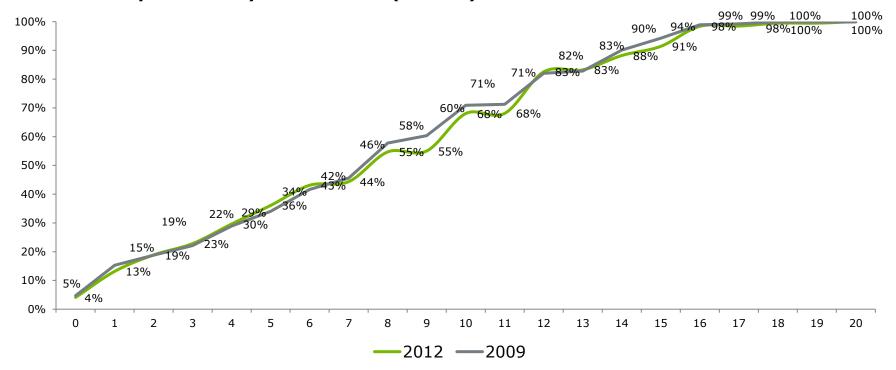






On average, HAs are worn 8.0 hours a day

How many hours a day are HA worn? (cum. %)



HA worn:

2012: Mean: 8.0 hours/day 2009: Mean: 7.7 hours/day

HA-owner: 2012: n=500 2009: n=503



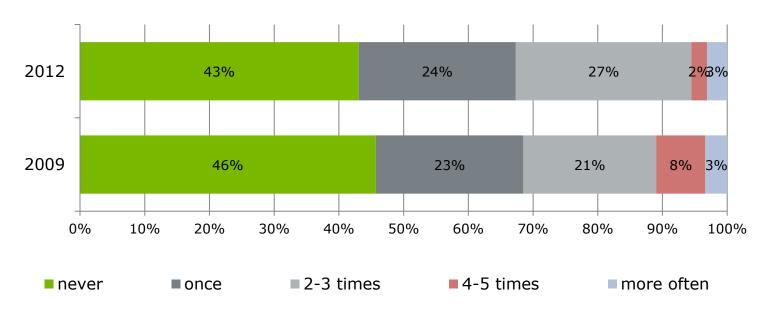






67% of the currently owned HAs either had no repair need or only once

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



HA-owner: 2012: n=500 2009: n=503









Awareness and importance of wireless technology



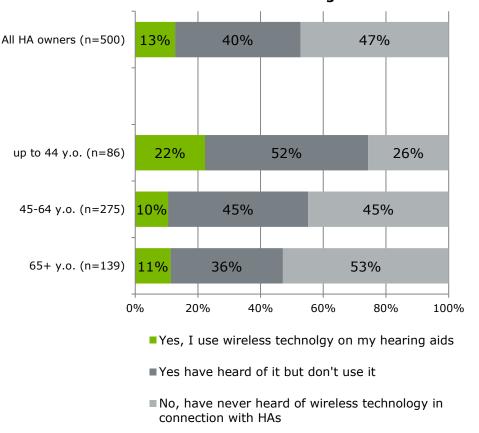




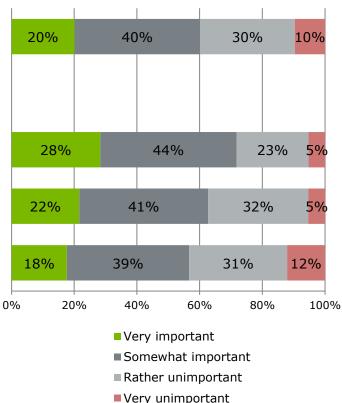
Younger HA owners use wireless technology with their HAs more often and it's more important to them

Wireless Technology

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



Importance of wireless technology in connection with hearing aids?











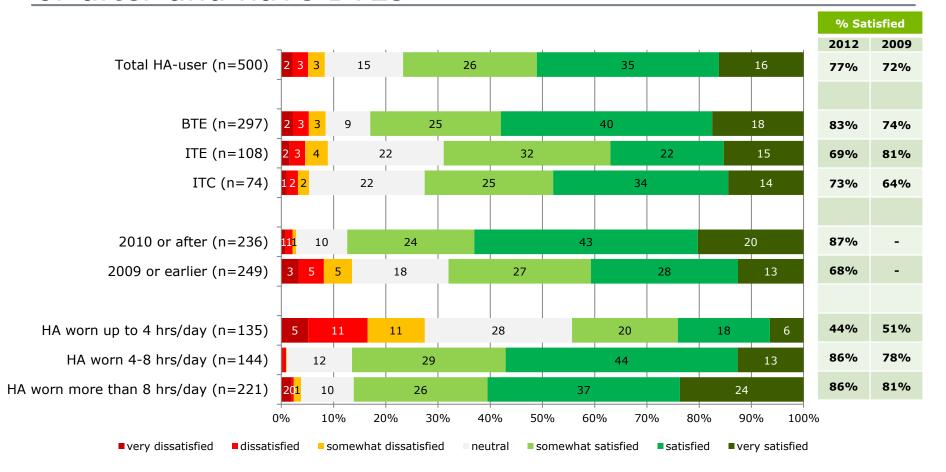
Satisfaction with HA and drivers







Overall satisfaction with HA is highest among users who wear them more than 8 hrs/day, bought them in 2010 or after and have BTEs











Factors influencing satisfaction with current HA: Sound quality/signal processing is most important for overall satisfaction with HA

		Influence on overall satis-faction with HA*	Comparison 7 = became more important 3 = stayed the same 3 = became less important
	Quality of service during hearing aid fitting period	0.64	\rightarrow
Dianamaan	Professionalism of dispenser	0.61	\rightarrow
Dispenser	Quality of service after purchase	0.60	\rightarrow
	Quality of dispenser's counselling	0.60	→
	Conversation with one person	0.67	7
	Conversation in small groups	0.66	\rightarrow
	Conversation in large groups	0.65	\rightarrow
Listening	Use in noisy situations	0.65	\rightarrow
	Understanding a lecture in a large public place	0.63	
situation	Leisure activities	0.62	\rightarrow
	Watching TV	0.61	\rightarrow
	On the telephone	0.57	\rightarrow
	Listening to Music	0.56	
	Clearness of tone and sound	0.75	\rightarrow
Sound quality	Richness or fidelity of sound	0.75	\rightarrow
signal process.	Comfort with loud sounds	0.73	\rightarrow
	Natural sounding	0.73	\rightarrow
	Reliability	0.71	71
	Overall fit/ Comfort	0.67	\rightarrow
Product	Managing whistling/feedback/buzzing	0.67	\rightarrow
features	Ease of changing battery	0.61	7
Teatures	Visibility to others	0.59	\rightarrow
	Value (performance versus money spent)	0.57	ת
	Battery life	0.46	У

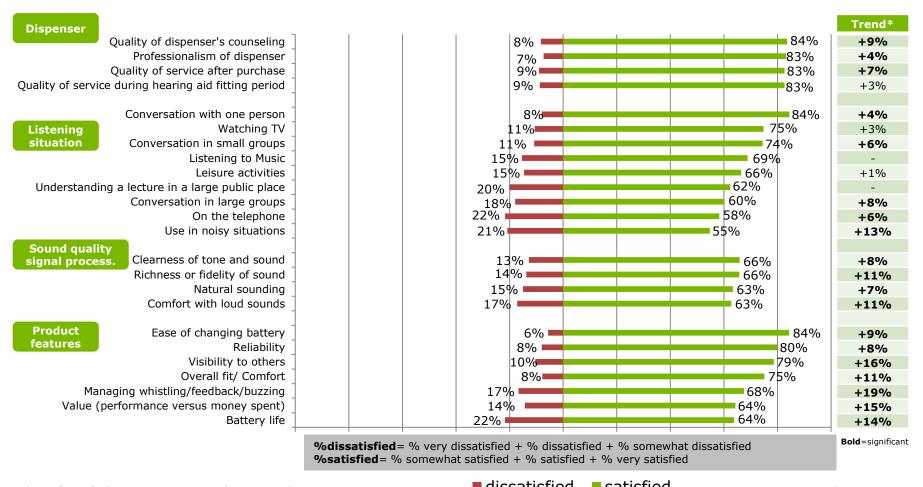








Satisfaction with current HA



* % of satisfied HA owners compared to EuroTrak 2009

dissatisfied satisfied

HA-owner, n=500









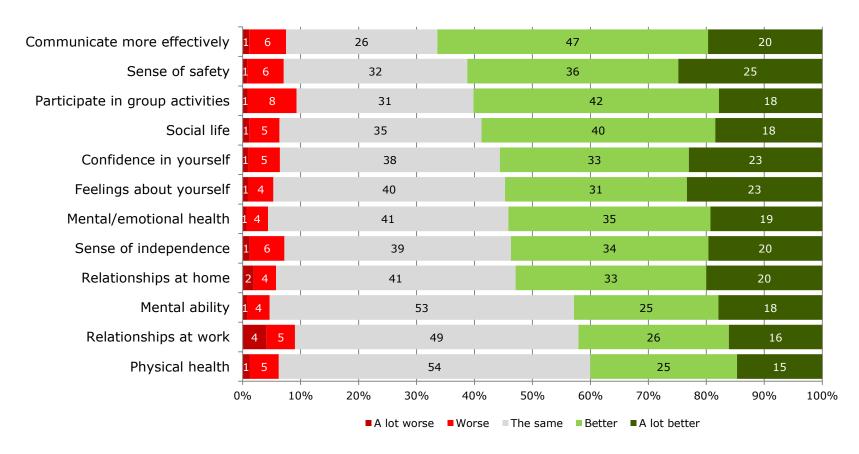
Positive impact of HAs







Significant positive impact of HAs on different aspects – especially communication effectiveness and sense of safety have improved



HA-owner, n=500



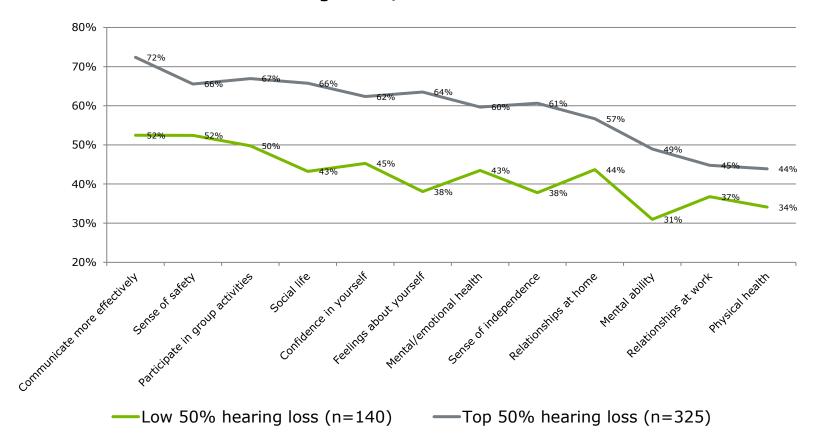






Impact of HAs is perceived more positive by patients with top 50% hearing loss in all aspects

% of HA owners feeling better/a lot better

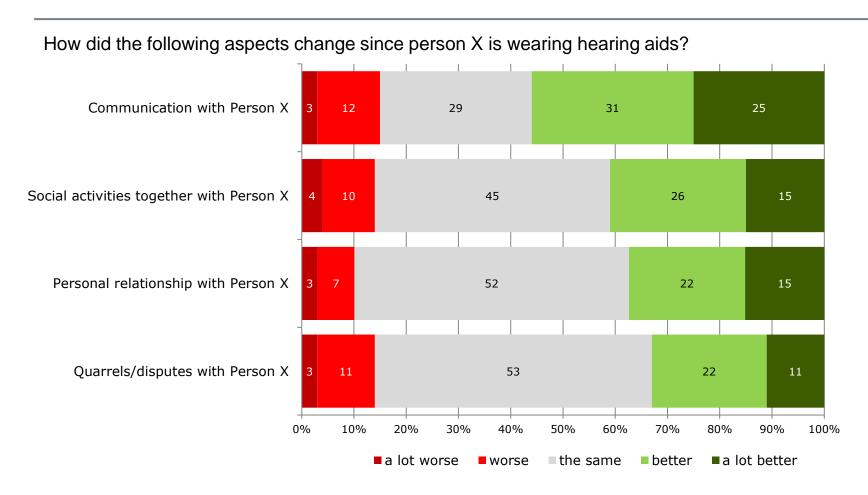








For the significant others, the situation has improved, since person in household/parent is wearing hearing aids



Someone in HH / parent have HA, n=579









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

	% HA Owner (n=500)		%HA-Non- owner Low 50% HL	%HA-Non- owner Top 50% HL			
Ears impaired							
Unilateral loss	22%		47%		31%		
Bilateral loss	78%		53%		69%		
Perceived loss			More similar hearing loss-				
r crecived 1055			structure				
Mild	10	%	53%		12%		
Moderate	45	%	38%		60%		
Severe	29 ⁴	%	6%		23%		
Profound	16	%	2%		4%		

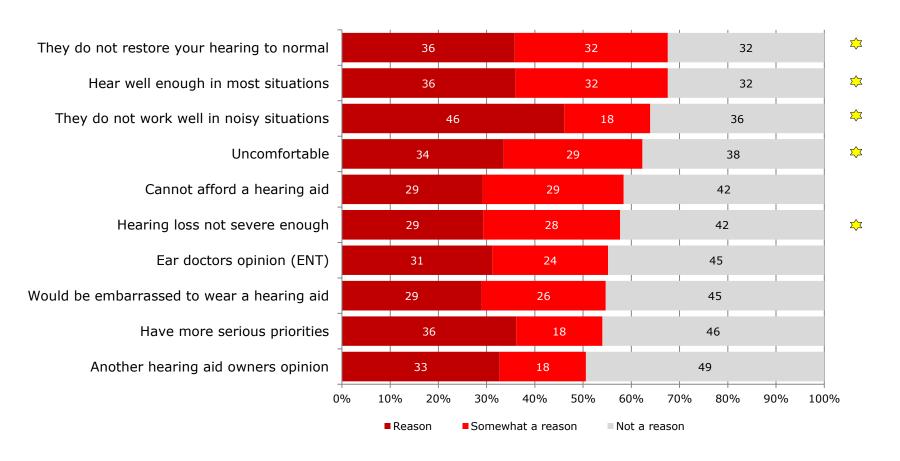








Top 10 reasons for not having a hearing aid (I/II)



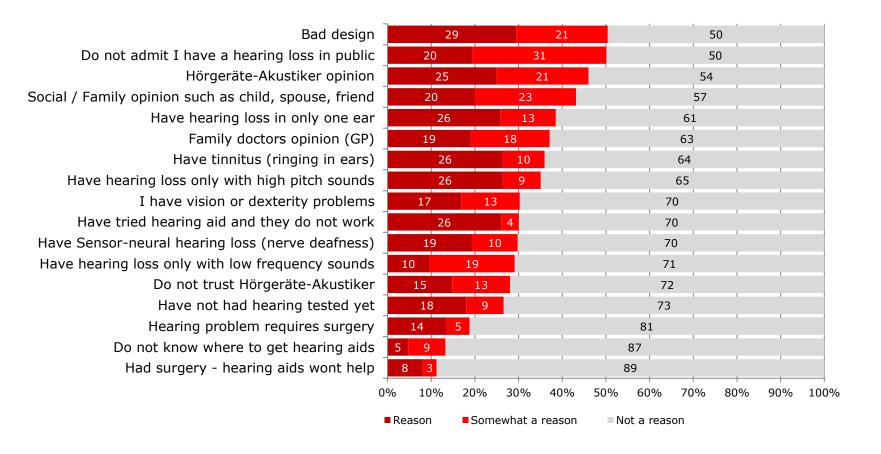
=Top 5 reasons EuroTrak 2009







Less important reasons for not having a hearing aid (II/II)



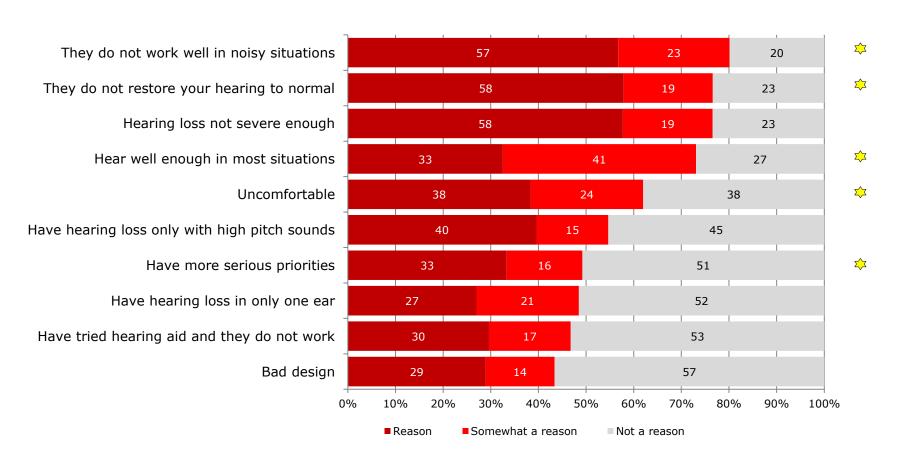








Top 10 reasons for HA owners NOT using them



=Top 5 reasons EuroTrak 2009

Owners who don't use, n=33







Negative impact of hearing loss

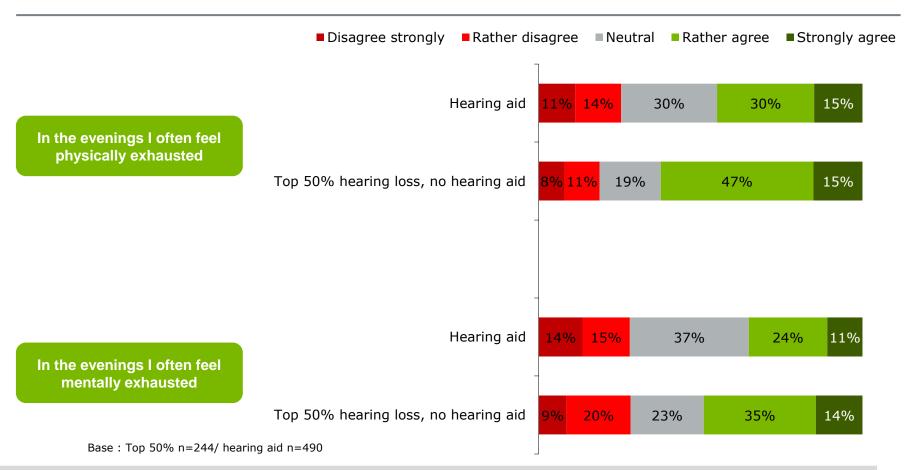








Compared to impaired hearing aid non-owners with significant hearing loss (Top 50% hearing loss*), hearing aid owners feel less exhausted in the evenings



^{*}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

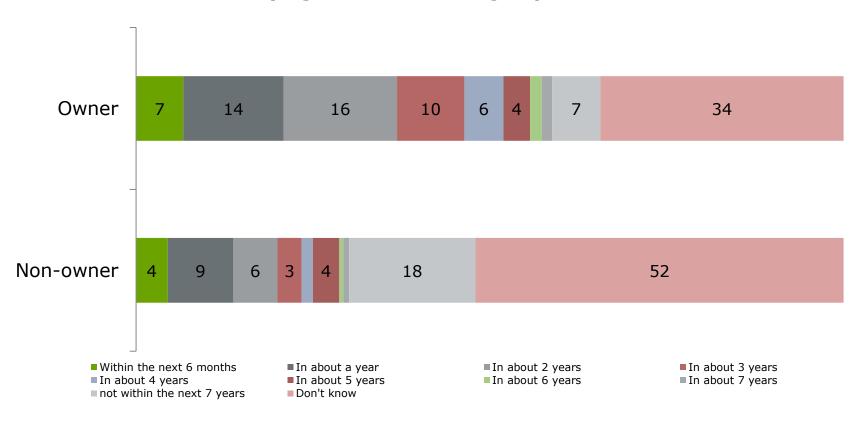






13% of non-owners intend to get a hearing aid within the next year. Re-buying intention is higher than first-buying intention

Buying intention hearing impaired in %



HA-non-owner, n=864 HA-owner, n=500





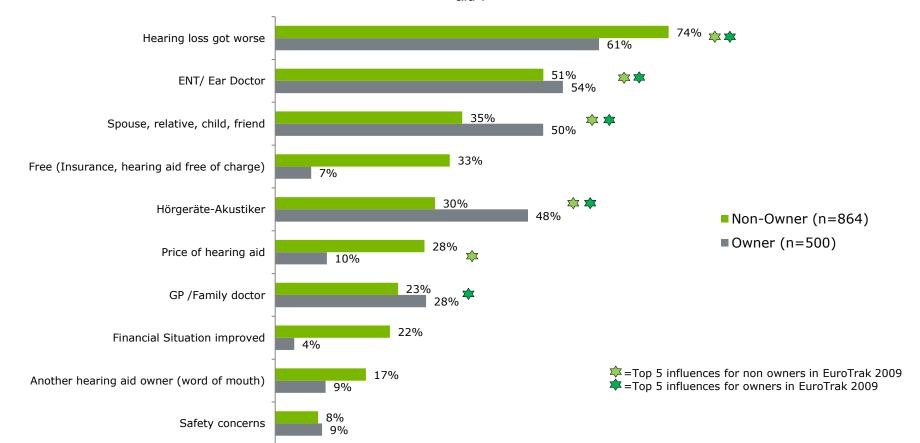




The most important influencing factors are worse hearing loss, ENT, spouse/relatives and Hörgeräte-Akustiker

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?







Stefan Ruf lic. rer. pol.

Anovum GmbH Sumatrastrasse 25 CH-8006 Zürich

Telefon +41 (0)44 576 76 77 Mobil +41 (0)78 717 88 01 Email stefan.ruf@anovum.com

www.anovum.com



Christian Egger lic. phil.

Anovum GmbH Sumatrastrasse 25 CH-8006 Zürich

Telefon +41 (0)44 576 76 78 Mobil +41 (0)76 318 57 51

E-Mail christian.egger@anovum.com

www.anovum.com





EHIMA

Soeren Hougaard

EHIMA secretary general Phone: (+45) 4045 7135

Email: sh@ehima.com









APPENDIX







Demographics (1): Hearing instrument adoption rates and populations

Profiles: Categories add to 100%*

	Profiles: Categories add to 100%					100 /6
	Count	Hearing difficulty	Hearing aid adoption rate % (Base=hearing impaired)	No hearing loss	Hearing loss but no hearing aid	Hearing aid
Gender						
Male	6831	85.4%	35.0%	48.6%	51.8%	54.1%
Female	7090	87.3%	32.9%	51.4%	48.2%	45.9%
Age recoded						
1 - 14	1863	95.9%	27.8%	14.9%	3.1%	2.3%
15 - 24	1556	95.2%	34.4%	12.3%	3.2%	3.3%
25 - 34	1668	92.3%	27.0%	12.8%	6.9%	4.9%
35 - 44	1974	91.6%	15.8%	15.0%	11.2%	4.1%
45 - 54	2270	88.2%	18.5%	16.6%	17.7%	7.8%
55 - 64	1722	83.3%	30.0%	11.9%	16.6%	13.8%
65 - 74	1583	74.9%	40.6%	9.9%	19.4%	25.6%
74+	1284	61.0%	47.4%	6.6%	21.8%	38.1%
Type of household						
single household	1898	78.7%	38.0%	12.5%	20.6%	24.4%
Couple, no kids	4269	82.3%	35.6%	29.3%	39.5%	42.2%
Couple with kid(s)	5573	91.5%	24.1%	42.3%	27.8%	17.1%
Single mom/dad with kid(s)	794	92.3%	33.8%	6.1%	2.8%	2.8%
Retirement home, hospital etc.	166	53.2%	52.7%	0.8%	3.0%	6.6%
Other	1222	89.6%	36.4%	9.1%	6.3%	7.0%









Demographics (2) Hearing instrument adoption rates and populations

Profiles: Categories add to 100%*

	Profiles: Categories add to 100%*						00 /6
Status	Count	Hearing difficulty	Hearing aid adoption rate % (Base=hearing impaired)		No hearing loss	Hearing loss but no hearing aid	Hearing aid
		22.20	24.50		44.00/	C4 20/	CO 20/
The head of the household (alone or together with someone		82.2%	34.6%		44.8%	64.2%	68.2%
The spouse of the head of the household		86.4%	30.9%		24.6%	25.4%	22.8%
Daughter/son of head of household		96.3%	28.8%		23.4%	5.6%	4.6%
Other Person	942	89.8%	31.7%		7.2%	4.8%	4.5%
Employment							
Full time employee	4626	89.5%	21.1%		40.7%	32.1%	16.5%
Part time employed	1595	89.6%	20.4%		14.1%	10.8%	5.3%
Unemployed / not working	893	90.3%	23.2%		8.0%	4.9%	2.9%
Retired under a disability pension scheme (fully or partly	235	80.0%	41.1%		1.9%	1.9%	2.6%
Early retired under an early retirement benefit scheme	1391	72.8%	40.1%		10.1%	19.3%	24.9%
Retired (at the official retirement age	2013	69.2%	45.5%		13.9%	28.8%	46.3%
Student / pupil / in training	1192	96.9%	26.6%		11.3%	2.2%	1.5%
Education							
Hauptschule	2084	79.4%	37.0%		16.3%	23.2%	26.3%
Mittlere Reife (Realschule	2558	87.0%	34.6%		21.9%	18.5%	18.9%
Abitur/Fachabitu	r 1697	91.0%	28.0%		15.3%	8.5%	6.3%
Lehrabschluss/Anlehro	2271	84.1%	31.3%		18.8%	20.9%	18.3%
Höhere Berufsausbidlung (Techniker, Meister o.Ä.	766	79.0%	32.4%		6.0%	9.1%	8.4%
Fachhochsulabschlus	871	83.6%	34.5%		7.2%	7.9%	8.0%
Universitätabschlus	1202	86.2%	37.6%		10.3%	8.4%	9.7%
Andere	497	85.1%	37.9%		4.3%	3.5%	4.1%

