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continued



Hearing

MarkeTrak 10 survey results: Hearing aid benefit and satisfaction rates remain high

Erin M. Picou

Featuring Thomas Powers

28 February 2020

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continued



Hearing

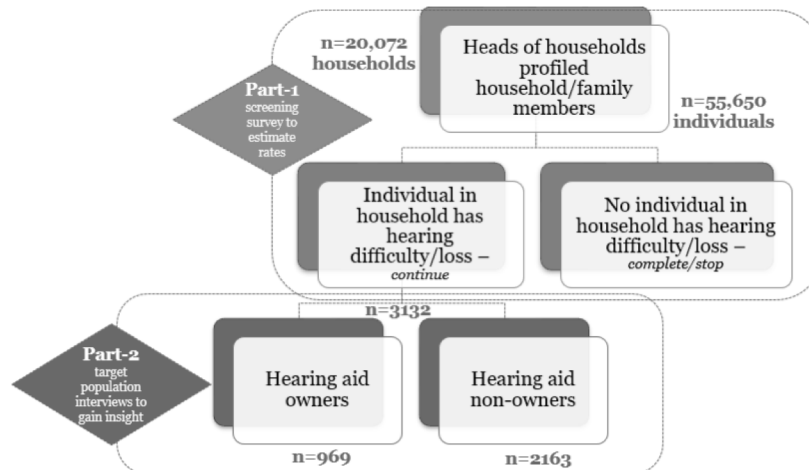
Acknowledgements / Disclosures

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 - Honorarium in exchange for today's webinar
- Today's webinar
 - Thomas Powers
 - Hearing Industries Association
 - Seminars in Hearing

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Methodological Overview



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Today's respondents...

- Completed the MarkeTrak 10 survey
- Are hearing aid owners
- Fitted by a professional
- Control group with a matched degree of hearing difficulty (no hearing aids)

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continued



SEMINARS IN Hearing

Learning Outcomes

After this course, participants will be able to:

- Describe current rates of hearing aid satisfaction
- Describe the effects of hearing aid use on mental health and quality of life
- Describe the current status of the hearing aid marketplace in terms of hearing aid use and ownership.

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continued



SEMINARS IN Hearing

Overarching Themes

- What's going well?
 - Areas where hearing aids providing benefit
 - Areas where people report satisfaction
 - Skills hearing aid users seem to have mastered
- What could we do better?
 - Areas where technologies could be improved
 - Skills we could teach clinically
 - Ways service delivery could be improved



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Who are you?

- Let's do a quick poll

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Hearing loss has consequences

- Reduced speech recognition, especially in noise
 - *Humes & Roberts (1990), Plomp (1986), Bronkhorst (2000), Sherbecoe & Studebaker (2002)*
- Increased depressive symptoms
 - *Kramer et al (2002), Cacciatore et al (1999)*
- Increased risk of isolation
 - *Stam et al (2016), Mick et al (2014), Hawthorne (2008)*
- Reduced quality of life
 - *Dalton et al (2003), Chia et al (2007), Gopinath et al (2012)*

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Hearing aids can help



- Improved speech recognition
 - Hearing aids general (e.g., Humes et al 2002; Hornsby 2013; Shanks et al 2002)
 - Noise reduction (e.g., Wu 2010; Sarampalis et al 2009; Ricketts & Henry 2002)
 - Streaming (e.g., Picou & Ricketts 2011; Au et al 2019)
- Downstream consequences
 - Depressive symptoms (e.g., Acar et al 2011; Gopinath et al 2009)
 - Isolation (e.g., Weinstein et al 2016; Joore et al 2003)
 - Quality of life (e.g., Chisolm et al 2007; Kitterick & Ferguson 2018)

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Hearing aids don't cure hearing loss

- Low adoption rates (see Jorgenson's article)?
- Low benefit rates?
- Low use rates?
- Low satisfaction rates?

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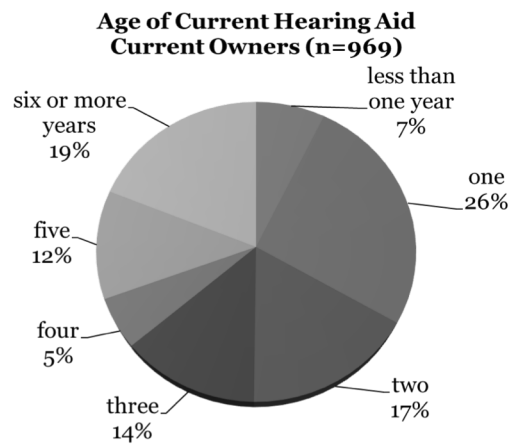


Current Trends

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Most hearing aids were two years old or younger

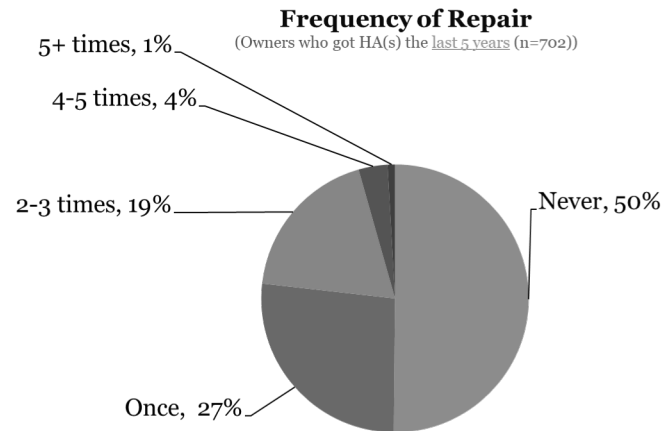


Average age = 4.2 years

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New hearing aids don't break very often



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What is the most popular hearing aid style?







- Let's do a quick poll

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Hearing

Receiver-in-the canal most popular

All Current Owners (n=946)	A device that fits only inside of the ear (no part of the device sits behind the ear)				A device that sits behind the ear and has a tube that connects to a part that goes inside the ear				
	26%				73%				
	"In the Ear" (Completely fills ear)	"In the Canal" (Partially fills ear)	"Completely in the Canal" (But still somewhat visible)	"Invisible" because you cannot see it when inserted	"Behind the Ear"	"Receiver in the Canal"	Part that connects to the tube (n=113)		
							Custom mold	Off-the-shelf	Not sure
	7%	8%	4%	4%	12%	60%	61%	24%	14%

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Hearing

Which "internal" features are popular?

Feature	HA Owners who got HA(s) in last 5 years (n=702)		
	Yes	No	Not sure
Volume control	67%	27%	6%
Program button	41%	42%	17%
Directional microphones	28%	37%	35%
Telecoil	20%	54%	26%
Tinnitus masker	14%	43%	43%
Rechargeable batteries	14%	81%	6%
Rechargeable hearing aid	15%	79%	6%

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continued



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Hearing

Which “external” features are popular?

EXTERNAL ACCESSORIES OR “APPS”	HA Owners who got HA(s) <u>in last 5 years</u> (n=702)		
	Yes	No	Not sure
Hearing aid remote control	21%	69%	10%
Body-worn Bluetooth device	15%	73%	12%
TV streamer	11%	79%	10%
Companion microphone	7%	80%	13%
Downloadable ‘app’ for smart phones	17%	68%	15%

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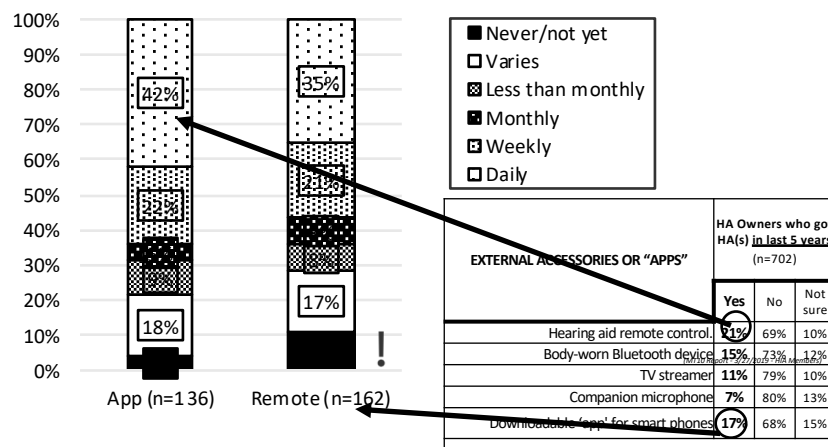


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Hearing

Those who have remotes and apps,
use them often

A

Frequency of Use by Accessory/App



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Hearing

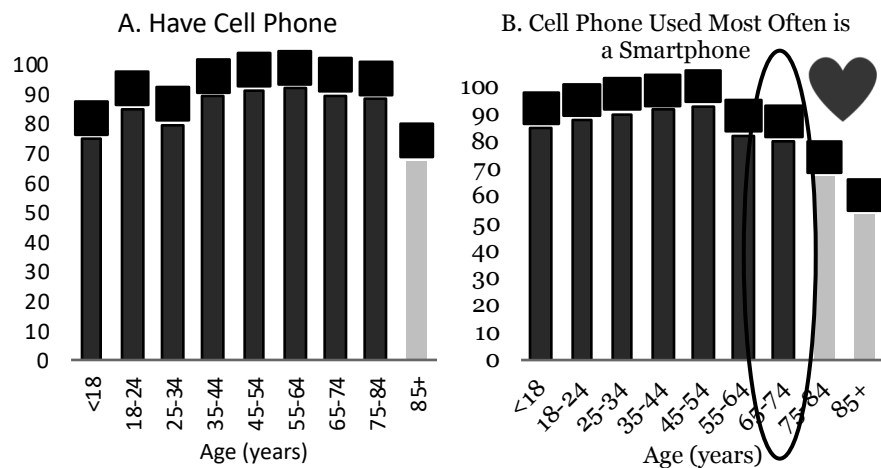
What about
wireless
connectivity
with
smartphones?

continued



Hearing

Most adults have cell phones



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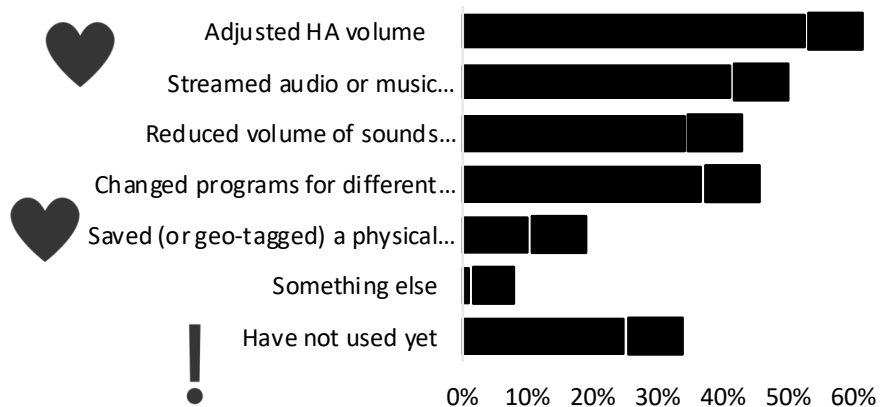
What about wireless connectivity?

"WIRELESS CAPABILITIES"	HA Owners who got HA(s) in last 5 years (n=702)		
	Yes	No	Not sure
The ability to 'link' volume or program changes	43%	36%	20%
The ability to stream sound from a TV, cell phone or computer with intermediary device	26%	57%	18%
The ability to stream sound from an iPhone directly into your hearing aids,	13%	66%	21%
NET: Wireless hearing aid (calculated)	54%	37%	9%

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What are people doing with their iPhones?

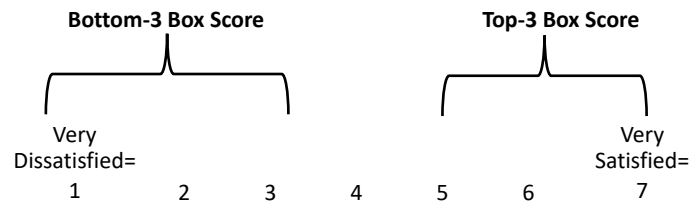


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Satisfaction

SATISFACTION SCALE AND SCORES:



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How many people are satisfied with their hearing aids?

- Let's do a quick poll

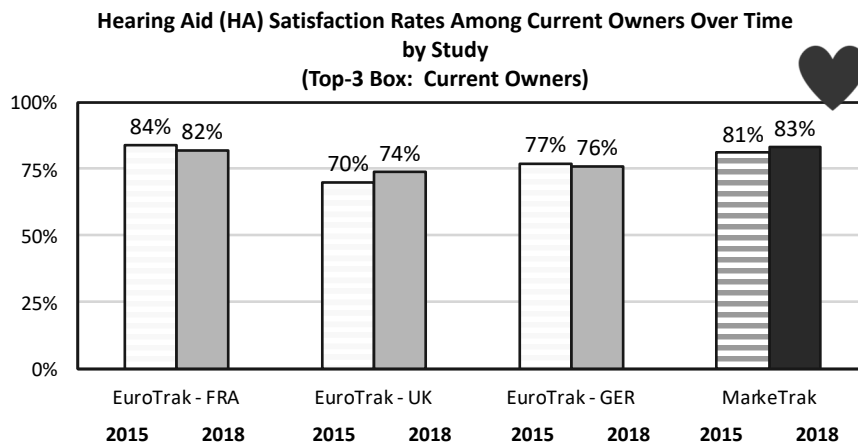
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continued



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Hearing

More than 8 in 10 hearing aid users are satisfied



continued



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Hearing

Factors related to satisfaction

- Perceived hearing difficulty
 - *Cox et al (2007); Uriarte et al (2005)*
- Initial attitude toward hearing aids
 - *Wilson & Stephens (2003); Gatehouse (1994)*
- Hearing loss self management
 - *Convery et al (2019)*
- Self-efficacy
 - *Ferguson et al (2016)*
- Perceived social support
 - *Singh et al (2015)*

continued



Factors not related to satisfaction

- Puretone average
 - *Cox et al (2007); Gatehouse (1994); Hickson (1999)*
- Age
 - *Uriarte et al (2005); Gatehouse (1994); Hickson (1999)*
- Gender
 - *Uriarte et al (2005); Gatehouse (1994); Hickson (1999); Jerram & Purdy (2001)*
- Employment status
 - *Hickson (1999); Jerram & Purdy (2001)*

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MT10 hearing aid factors related to satisfaction

- Hearing aid age
 - Newer hearing aid → more satisfaction
- Hearing aid cost
 - \$3000 / aid → more satisfaction
- Hearing aid style
 - BTE users → more satisfied
- Hearing aid features
 - Some features → more satisfied

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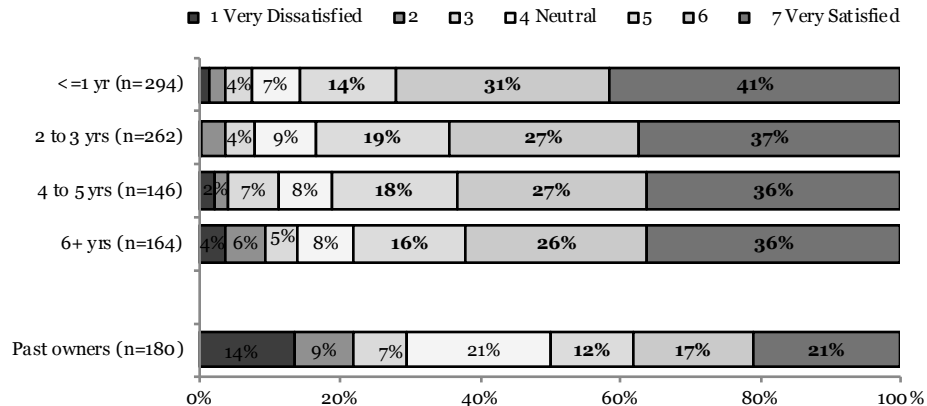
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Hearing

Respondents are more satisfied with newer hearing aids

Overall Satisfaction by Age of Hearing Aid



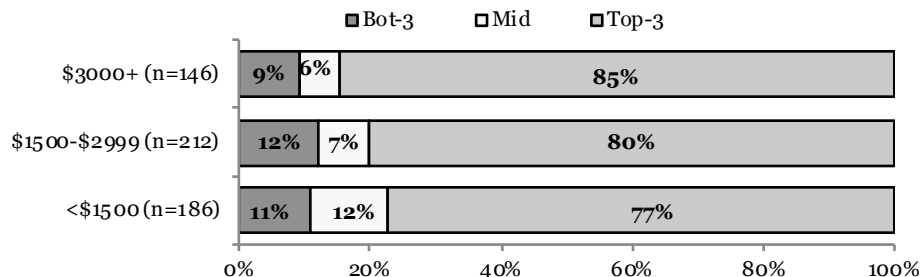
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Hearing

Respondents who paid more per hearing aid are more satisfied

Overall Satisfaction by Price of HA (NET: Ever Owned (current+past))



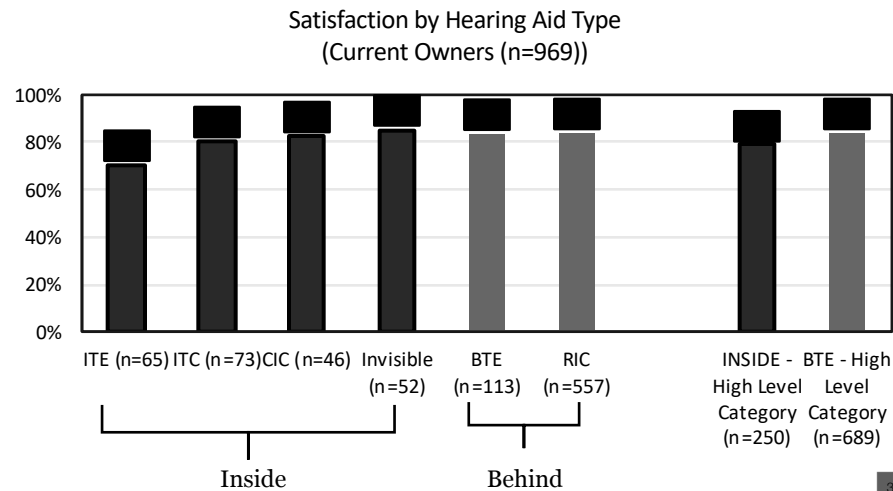
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Hearing

Respondents with BTEs are more satisfied



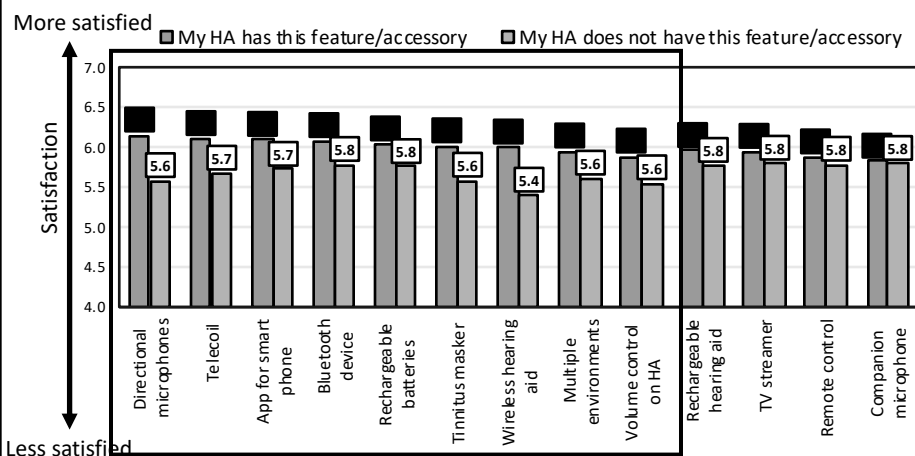
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SEMINARS IN
Hearing

Some hearing aid features related to higher levels of satisfaction



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continued

continued



Hearing

Hearing aid features associated with satisfaction summary

- Directional microphones
- Telecoil
- App for smartphone
- Bluetooth device
- Rechargeable batteries
- Tinnitus masker
- Wireless hearing aid



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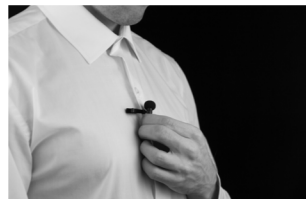
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Hearing

Hearing aid features not associated with satisfaction

- Remote control
- Companion microphone
- TV streamer

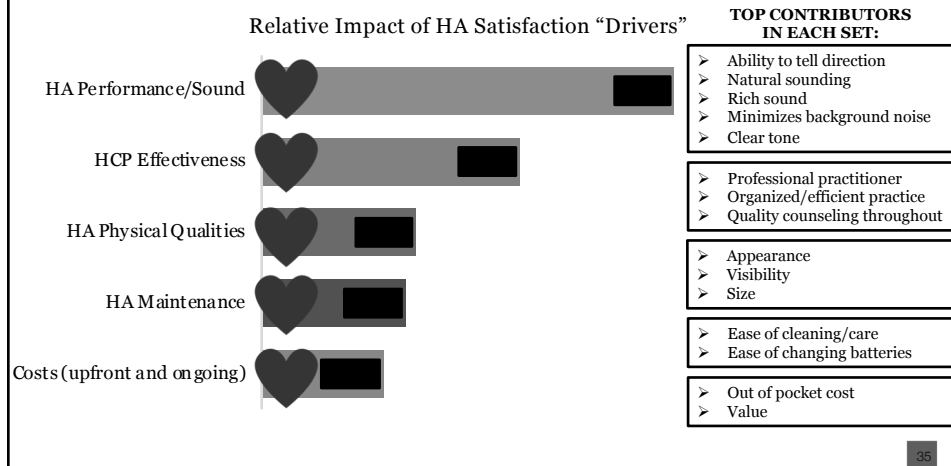


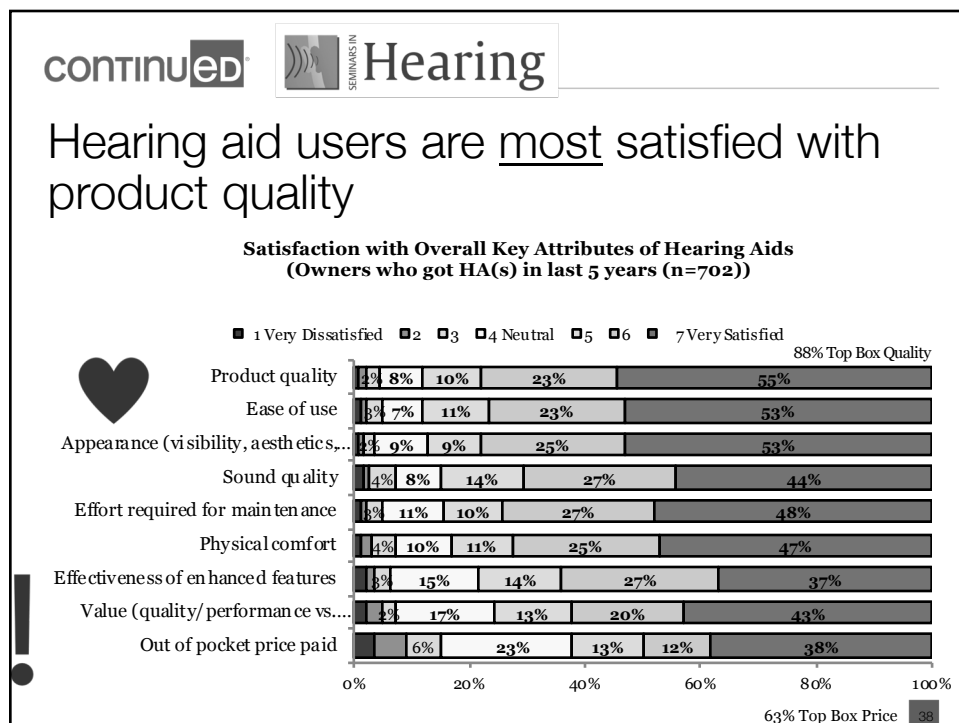
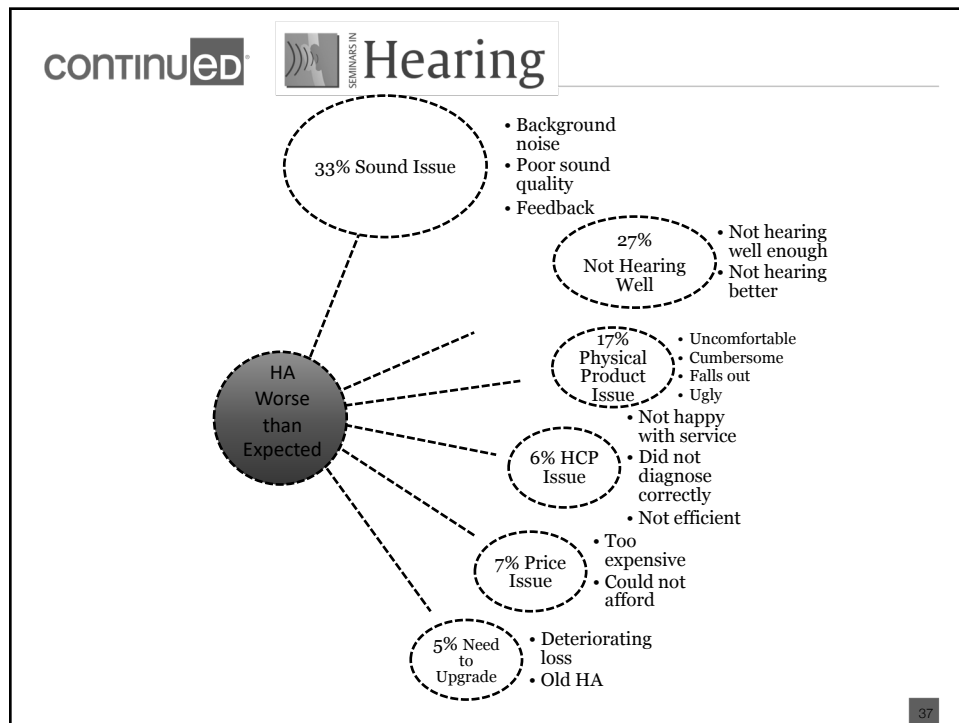
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What drives hearing aid satisfaction?





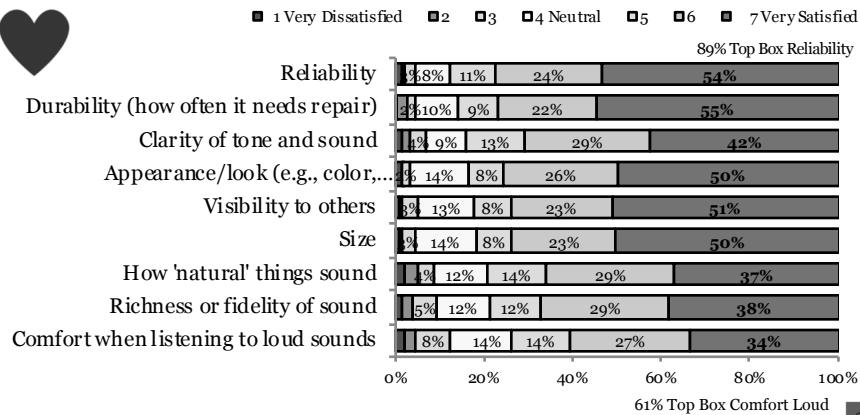
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Hearing

Hearing aid users are least satisfied with loud sounds

Satisfaction with Physical/Sound Attributes of Hearing Aids
(Owners who got HA(s) in last 5 years)



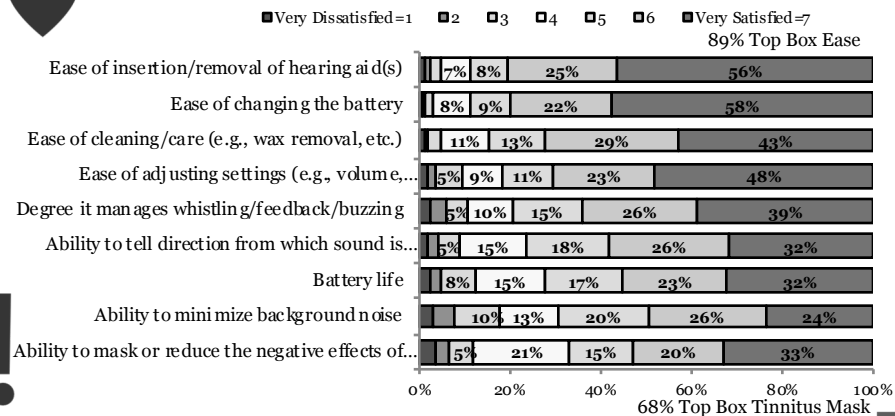
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Hearing aid users are most satisfied with ease of use

Level of Satisfaction with Functional Aspects of Current HAs
(Owners who got HA(s) in last 5 years)



continued



Satisfaction Summary

- 8 of 10 hearing aid users are satisfied
 - Newer hearing aids
 - Cost >\$3000
 - BTEs
 - Features active (not remote microphone)
- Drivers of hearing aid satisfaction
 - Sound quality
 - Hearing care professional effectiveness



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Satisfaction Summary

- Things more hearing aid users are satisfied with
 - Product quality
 - Ease of use
 - Appearance
 - Ease of insertion/ removal
 - Ease of changing the battery
 - Reliability
 - Durability



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Satisfaction Summary

- Things fewer hearing aid users are satisfied with
 - Effectiveness of advanced features
 - Value
 - Out of pocket price
 - Naturalness of sound
 - Richness / fidelity of sound
 - Comfort in loud sounds
 - Minimize background noise
 - Tinnitus masking



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Hearing Aid Benefits

Communication

Mental Health

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Communication Benefits

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Hearing aid users are most satisfied in small conversations

	Top-3 Box Satisfaction (on 7-point scale)	HA OWNERS – Age of HA				All Non-Owners (n=2013)
		All Owners (n=969)	HA <=1 years (n=294)	HA <=5 years (n=702)	HA 6+ years (n=164)	
<div> <div>Most satisfied</div> <div> <div>↓</div> <div>Least satisfied</div> </div> </div>	In conversations with 1 person	86%	88%	88%	81%	58%
	At home with family members	81%	84%	83%	72%	48%
	In the workplace	81%	92%	79%	91%*	48%
	In conversations with small groups	78%	83%	81%	69%	43%
	When listening to music	78%	78%	77%	76%	57%
	When watching TV with others	77%	82%	79%	68%	40%
	Outdoors	77%	83%	79%	68%	46%
	During leisure activities	77%	79%	78%	74%	52%
	In a store, when shopping	77%	80%	78%	72%	45%
	When riding in a car	74%	81%	75%	69%	48%
	When talking to children	73%	77%	73%	71%	44%
	When talking on a cell phone	73%	80%	75%	60%	51%
	At a movie theater	71%	74%	72%	65%	51%
	In conversations with large groups	70%	77%	71%	62%	30%
	In a larger lecture hall	70%	75%	71%	63%	37%
	When talking on a traditional telephone	69%	71%	69%	63%	50%
	When trying to follow conversations in noise	68%	76%	69%	61%	27%
	In a classroom (as observer or student)	66%	69%	65%	64%	40%
	Overall, across all listening situations	78%	83%	81%	67%	41%

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continued



Hearing

Hearing aids help in noise and large groups

Biggest difference



Smallest difference

Top-3 Box Satisfaction (on 7-point scale)	All Owners	All Non-Owners	Difference
	(n=969)	(n=2013)	
When trying to follow conversations in noise	68%	27%	41%
In conversations with large groups	70%	30%	40%
When watching TV with others	77%	40%	37%
In conversations with small groups	78%	43%	35%
At home with family members	81%	48%	33%
In the workplace	81%	48%	33%
In a larger lecture hall	70%	37%	33%
In a store, when shopping	77%	45%	32%
Outdoors	77%	46%	31%
When talking to children	73%	44%	29%
In conversations with 1 person	86%	58%	28%
When riding in a car	74%	48%	26%
In a classroom (as observer or student)	66%	40%	26%
During leisure activities	77%	52%	25%
When talking on a cell phone	73%	51%	22%
When listening to music	78%	57%	21%
At a movie theater	71%	51%	20%
When talking on a traditional telephone	69%	50%	19%
When trying to follow conversations in noise	68%	27%	37%

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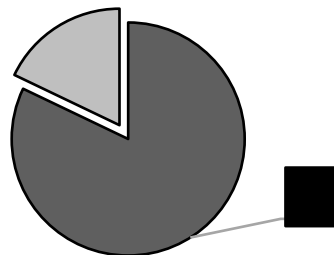
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Hearing

Most hearing aid users wear aids when using the phone

Wear HA when placing or receiving calls?
(Own HA and cell phone (n=811))

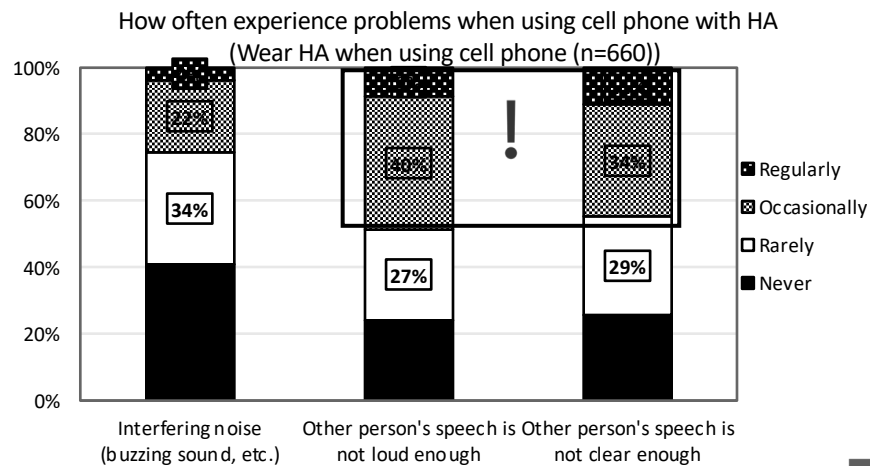


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Hearing

Hearing aid users experience some difficulties with the phone

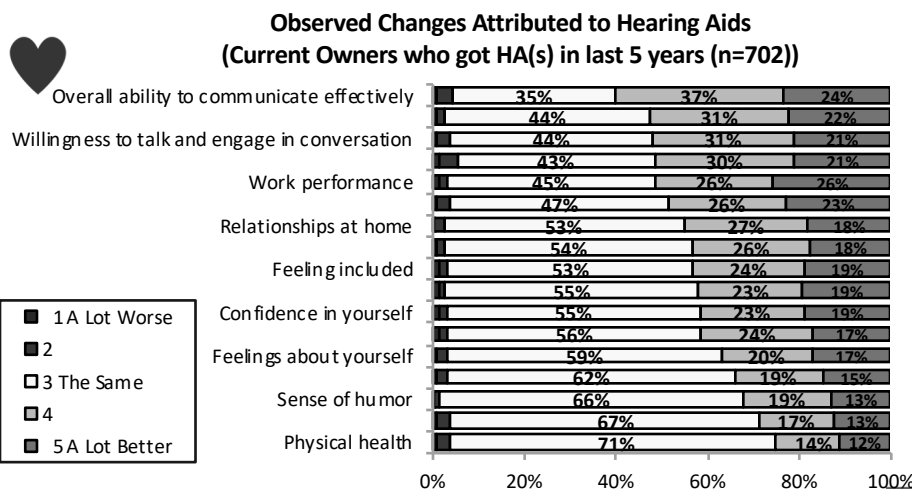


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Hearing

Hearing aid users note many benefits

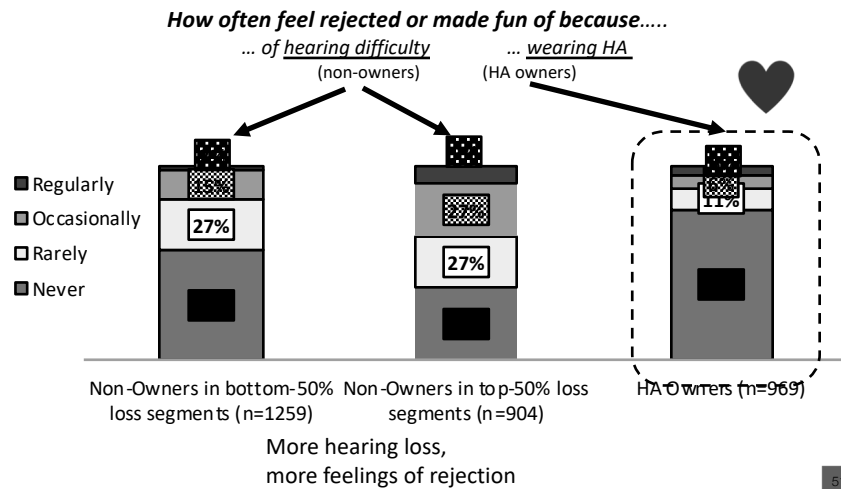


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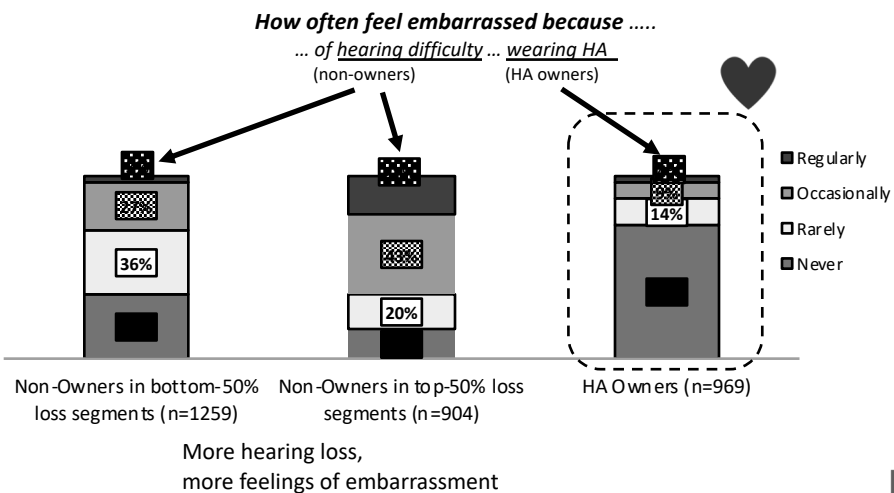
continued^{ed} Hearing

Hearing aids aren't generally embarrassing



continued^{ed} Hearing

Hearing aids aren't generally embarrassing





Summary of Communication Benefits

- Most people who wear hearing aids don't report their hearing aids
 - Don't make them feel embarrassed
 - Don't make them feel rejected
- Compared to their peers without hearing aids, more hearing aid users are satisfied
 - Following a conversation in noise
 - Following conversations in groups
- Hearing aid users report that hearing aids help
 - Communicated effectively
 - Engage in conversations
 - Help at work



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Mental Health Benefits

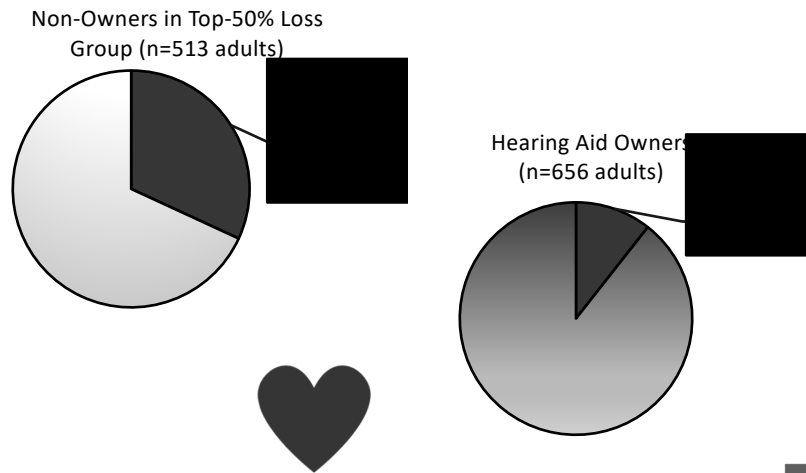
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Hearing

Hearing aid use lowers the risk of depression

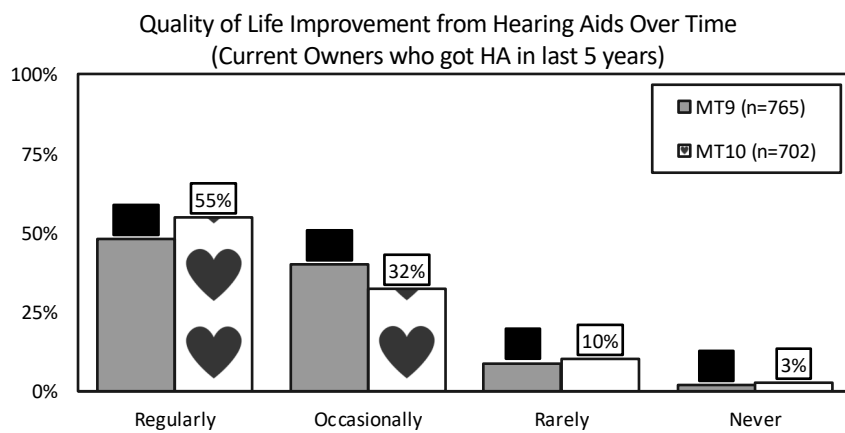


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Hearing

Hearing aids improve quality of life



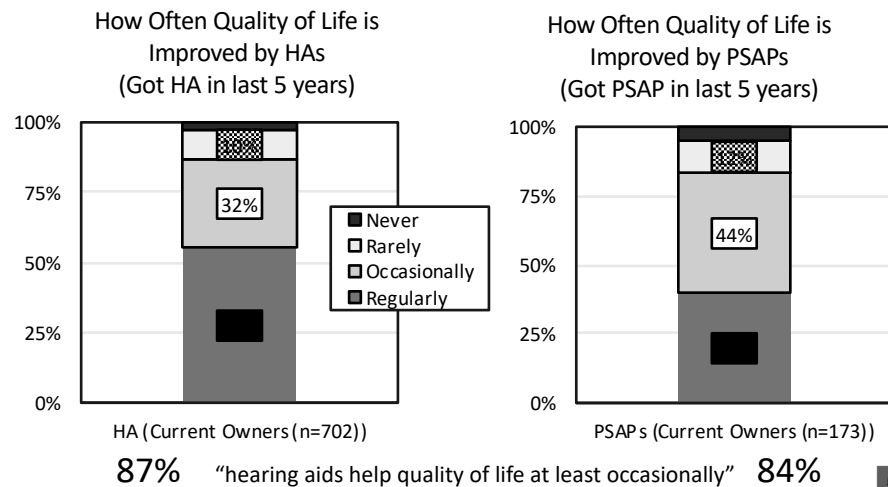
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SEMINARS IN
Hearing

More hearing aid owners report regular increased QoL than PSAP owners



continued



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Hearing

Summary of Mental Health Benefits

- Depression
 - Risk of depression is lower for people with hearing aids than without
- Quality of life
 - Most people (more than 80%) report the hearing aids regularly or occasionally improve their quality of life
 - More hearing aid users (55%) than PSAP users (40%) report their devices regularly improve their quality of life



continued



What's going well?

- Satisfaction rates are relatively high (>80%)
 - Driven by sound quality and effective professionals
 - Influenced by hearing aid age, price, and features
 - Directional microphones, telecoils, streaming
- Evidence of hearing aid benefits
 - Reduced risk of depression
 - Increased reported quality of life
 - Enhanced communication in important listening situations
- Feelings of hearing aid stigma are rare



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What can we do better?

- Now's your opportunity to brainstorm with me things we can do individually or as a field to address some of these limitations

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What can we do better?



- Many patients are unaware of their features
- Many patients have not yet used their wireless features
 - Counseling
 - See for example: Desjardins & Doherty (2009)
 - Patient-friendly brochures
 - See for example: Caposecco et al (2016)

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What can we do better?



- Some external accessories not (yet) related to satisfaction (e.g., companion microphone, television streamer)
 - Might naturally change
 - Patient-centered training
 - Gain settings
 - See for example: Leavitt (2018)

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What can we do better? !

- Satisfaction with cost (and to a lesser extent value) is relatively low (63% Top 3 Box)
 - Strive to offer cost-effective services
- Satisfaction with listening to loud sounds is relatively low (61% Top 3 Box)
 - Setting and verification/ validation of MPO
- Satisfaction with background noise is relatively low (70% Top 3 Box)
 - Feature-specific training
 - Feature individualization
 - Technological innovation

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What can we do better? !

- Satisfaction rates are low (69%) for talking on the telephone
 - Many hearing aid users are already using their hearing aids
 - Most report the volume is too low or the voice over the phone isn't clear
- Difference between hearing aid users and non-users is small for satisfaction with telephones
 - Carefully consider telephone options for individual patients
 - Adequate gain?
 - Patient training?
 - Best streaming (telecoil, Bluetooth, etc)?

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