

Committee on Accessible and Affordable Hearing Health Care for Adults

Panel 3: Affordability and Coverage

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Disclosures

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Factors Affecting Hearing Care Uptake

- MarkeTrak data (2005, 2007, 2009)
- “Definite” reasons for non-adoption of hearing aids
 - Hearing Loss 79%
 - Need 62%
 - Financial 46%

Hearing Care Insurance Coverage

- In the Henry Ford Health System
 - 45% of patients recommended hearing aids obtain them in the institution
 - 30-50% of patients who are recommended hearing aids have insurance coverage
 - 75% of patients who obtain hearing aids have some form of private insurance coverage

Hearing Aid & Hearing Care Cost

Hearing aid cost =

- Institutional/Practice costs +
- Device costs +
- Audiologic care

Example:

Cost to patient for binaural, entry-level hearing aids =

\$1,900

Institutional costs (40%) =

\$760

Device costs =

\$800

Audiologic care = \$340

Audiologic Care

- Typically unlimited care for a specified period of time
- Otoscopic examination
- Cerumen management
- Diagnostic assessment of hearing function
- Medical referrals for clearance and as otherwise needed
- Determination of need for and type of hearing or assistive listening devices
- Ear impressions
- Physical fitting of device
- Electroacoustic analysis of devices
- Hearing aid programming and adjustments
- Probe microphone measurements
- Patient education and counseling
- Outcome assessment
- Tinnitus assessment and management
- Ongoing evaluation of hearing
- Cleaning, troubleshooting, and in-office repairs
- Determining need for manufacturer repairs & remakes
- Communication strategies/auditory training

Hearing Care Insurance Coverage

- Full
 - Insurer pays the full cost of entry-level bilateral bundled costs; patient can upgrade as desired and pay balance
- Partial
 - Insurer pays a fixed amount toward bundled cost; patient pays the remainder
 - 40% reduction of bundled costs for 1 aid
 - 20% reduction of bundled costs for 2 aids
- None
 - Patient pays the full amount of bundled cost

Hearing Care Cost

- 4 “levels” of hearing aid technology with 4 different costs
 - Level 1 (entry-level)
 - Level 2
 - Level 3
 - Level 4 (highest technology available in market)

Hearing Care Uptake: Methods

- Retrospective chart review
- 1,200 patients
 - 400 per 3 groups (full, partial, no coverage)
 - Over 50 years of age

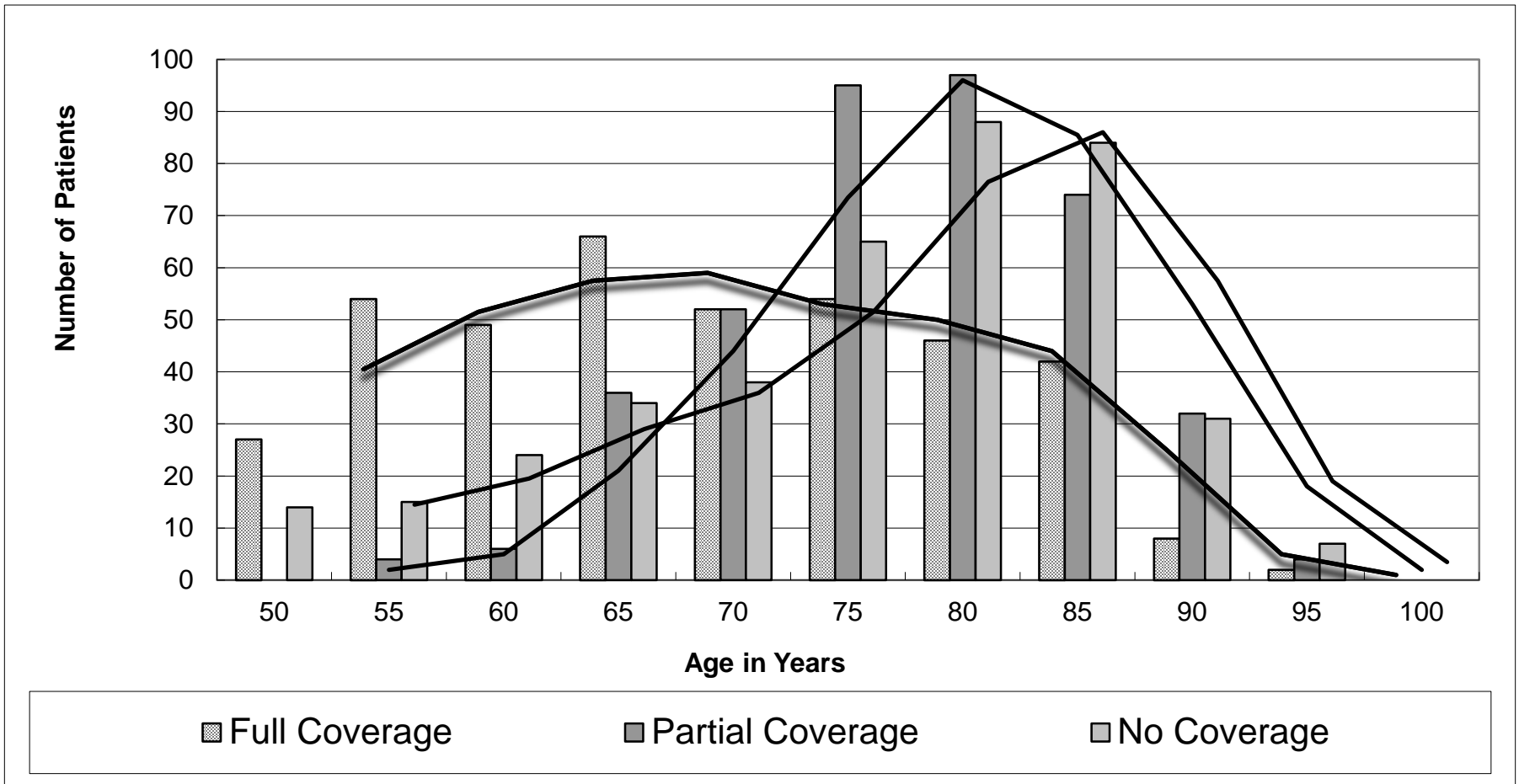
Hearing Care Uptake: Age

Mean Age:

- 7-8 years younger with full insurance coverage
- No difference with partial coverage

	Full	Partial	None
Male	70.02 (10.26)	77.64 (7.21)	74.99 (11.26)
Female	71.48 (11.89)	80.64 (7.69)	80.00 (10.50)
Total	70.61 (10.96)	79.44 (7.63)	78.06 (78.06)

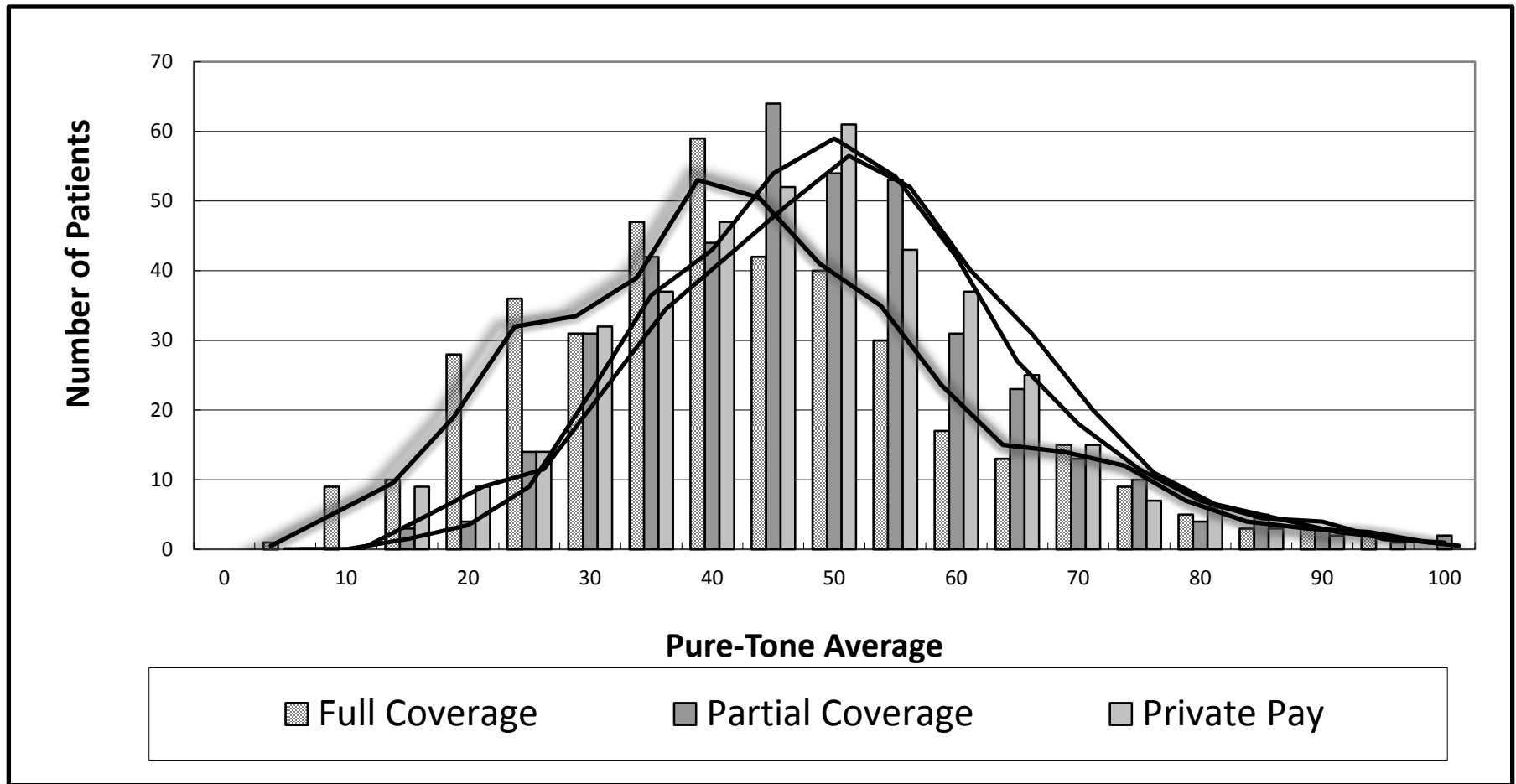
Hearing Care Uptake: Age



Hearing Care Uptake: Degree of Hearing Loss

- Mean PTA
 - Full 44 dB HL
 - Partial 49 dB HL
 - None 49 dB HL

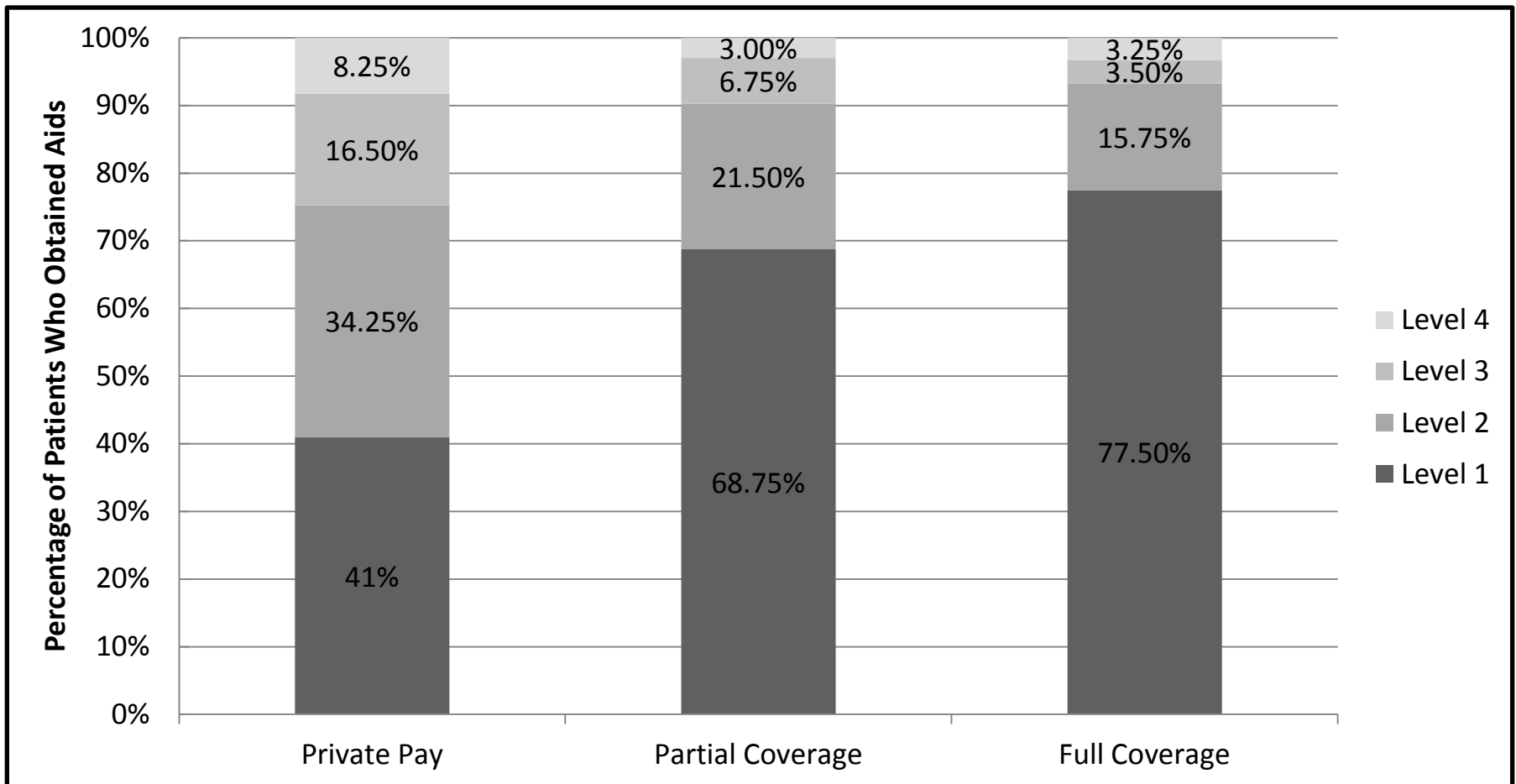
Hearing Care Uptake: Degree of Hearing Loss



Uptake of Hearing Care

- Hearing care at no cost decreased age at uptake by 7 years and hearing loss by 5 dB
- Reduction of cost did not result in changes to uptake

Hearing Care Uptake: Technology Obtained



Hearing Care Cost

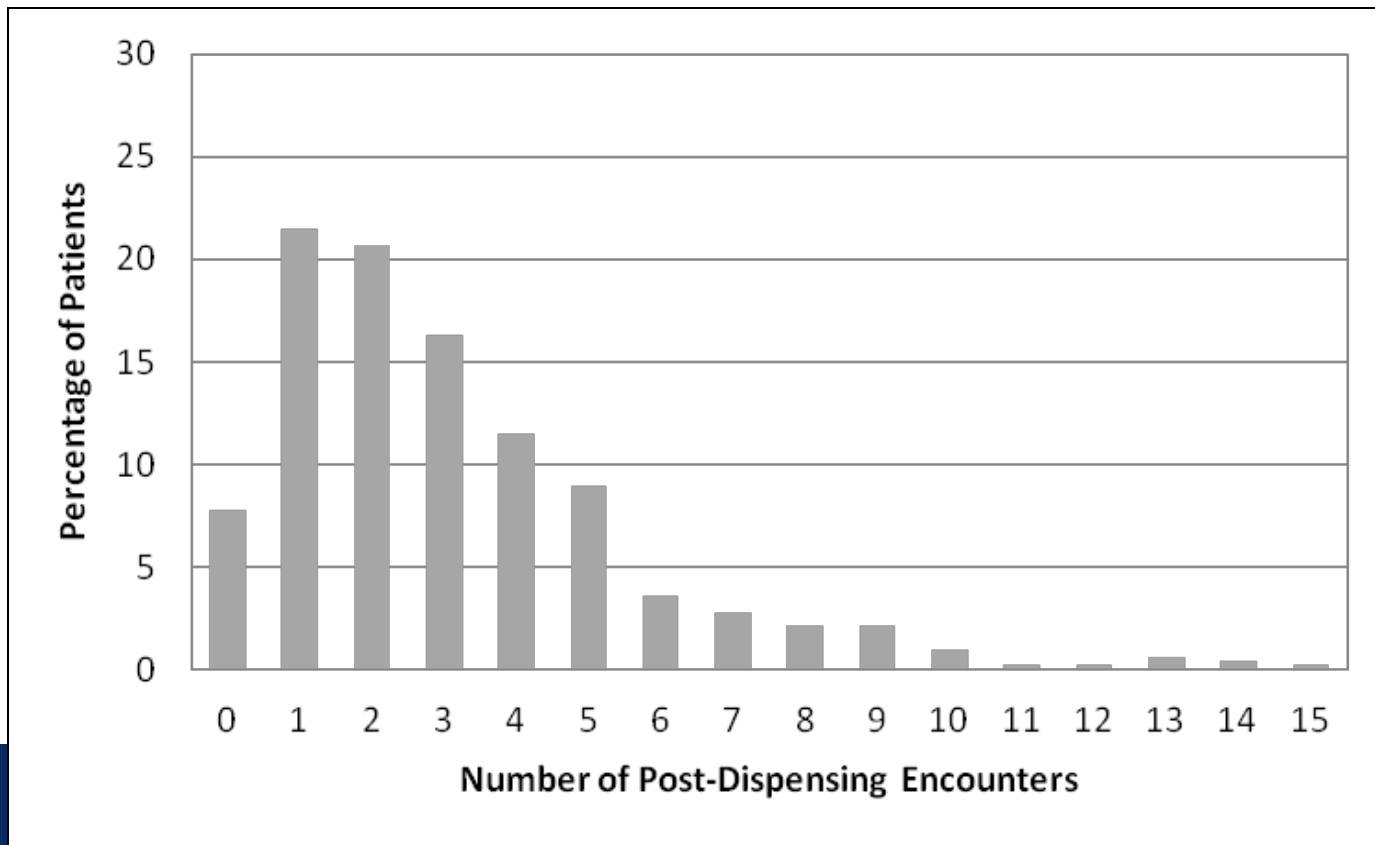
- Those who paid the most out of pocket were most willing to pay more
- Those who paid the least out of pocket were least willing to pay more
- Cost alone was not important per se; presence of insurance coverage was

Follow-up Methods

- Retrospective data analysis from 2009
- Number of follow-up visits for 1 year following hearing aid delivery date
- Number of patients: 504
- Total follow-up appointments: 1,567
- Non-significant factors:
 - Gender
 - Age
 - Degree of Hearing Loss

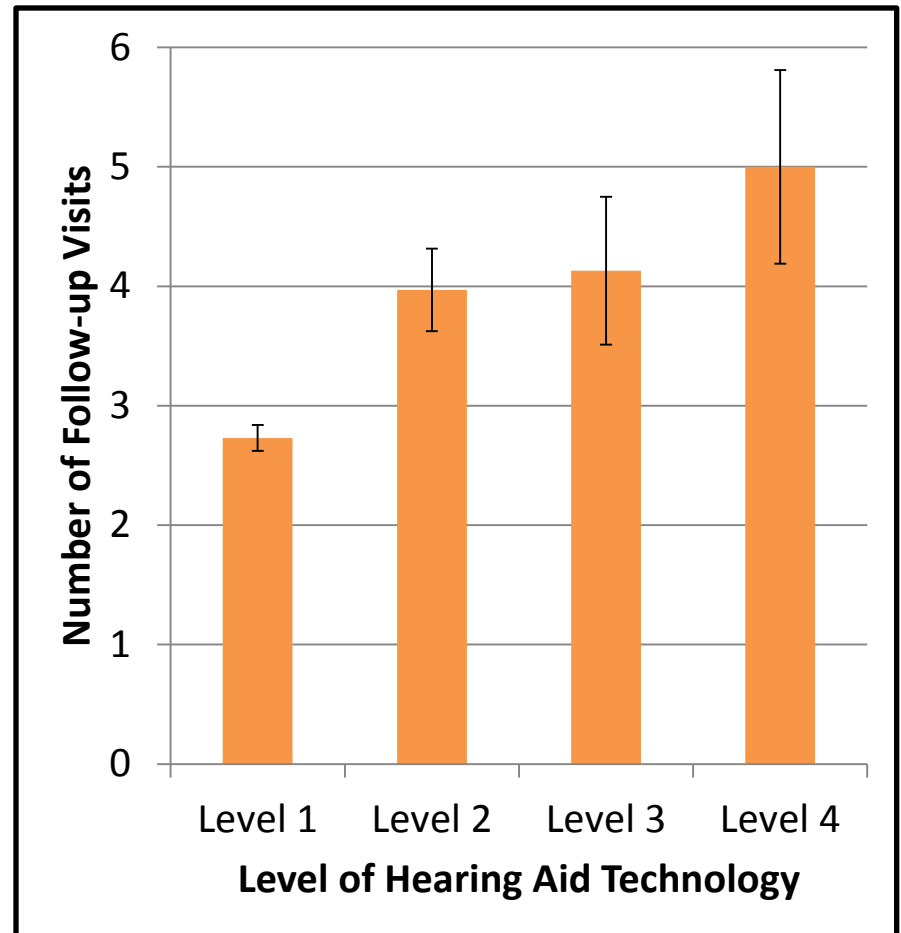
Overall Follow-up

- Follow-up appointments during first year:
 - Mean: 3.12; Range: 0-15
- Total audiology time with patients in hours during first year:
 - Mean: 3.56; Range: 2-9.5



Level of Technology

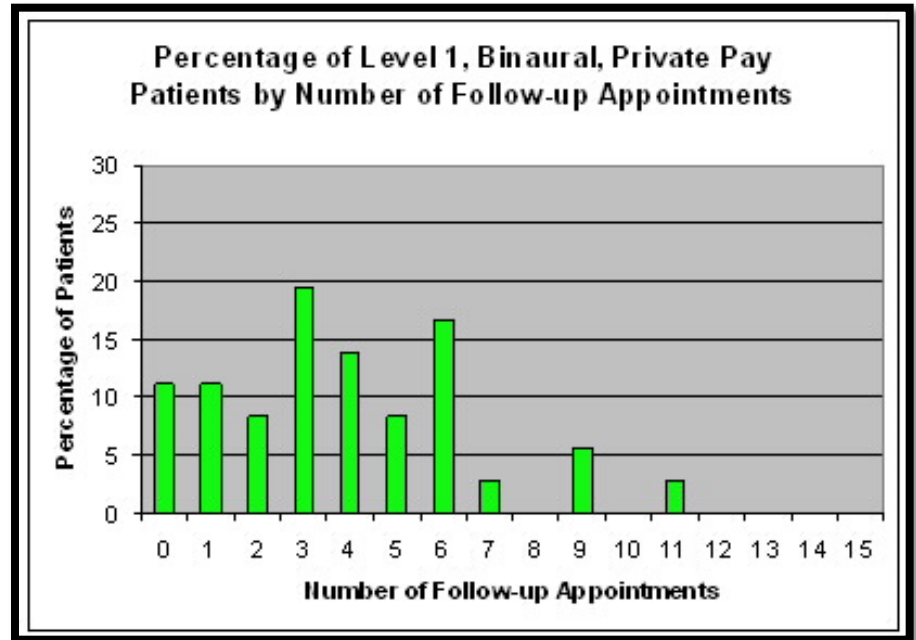
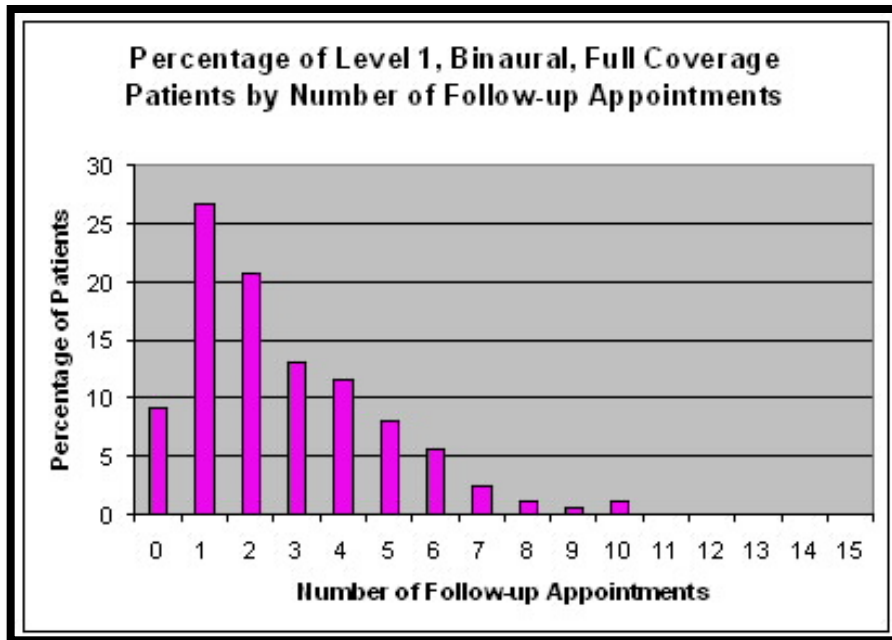
- Level 1
 - Total hours: 3.4
- Level 2
 - Total hours: 4.0
- Level 3
 - Total hours: 4.1
- Level 4
 - Total hours: 4.5



Role of Insurance Coverage

Full coverage: 2.7 visits, 3.3 hours

None: 3.6 visits, 3.8 hours



Summary

- Payment for the device by the patient resulted in higher utilization of audiologic care
- Interpretation: May indicate that a higher portion of patients with full insurance coverage were not using their hearing aids?

Socioeconomic Factors

- Bainbridge & Ramachandran (2014) Hearing Aid Use among Older United States Adults: The National Health and Nutrition Examination Survey, 2005–2006 and 2009–2010, *Ear & Hearing*, 35(3).
- Patients age 70 and over
- Hearing tested
- “In the past 12 months, have you worn a hearing aid at least 5 hours a week?”

Frequency distribution of better ear pure tone average by self-reported hearing ability (n=1,636). Potential hearing aid candidates = 601 (37%)

	Self-reported hearing ability							
	Excellent/good		Little trouble		Moderate trouble		Lot of trouble/deaf	
	n	%	n	%	n	%	n	%
Better ear pure tone average								
<25 dB HL	560	71.6	175	41.5	36	15.7	9	4.7
25-35 dB HL	178	20.2	122	29.5	63	28.0	17	11.1
36-45 dB HL	58	6.6	89	19.9	76	35.0	31	18.8
46-55 dB HL	13	1.5	29	6.9	36	13.8	42	24.7
56-65 dB HL	1	0.1	8	1.4	16	5.8	40	26.1
66-75 dB HL	0	0.0	4	0.8	4	1.3	16	10.4
> 75 dB HL	1	0.1	1	0.1	3	0.5	8	4.4
Total	811	100.0	428	100.0	234	100.0	163	100.0



Multivariable-adjusted prevalence ratios (95% confidence interval) for independent associations with hearing aid use

Income to poverty level quintile	Prevalence Ratio (95% CI) (n=468) 2005 - 2006	Prevalence Ratio (95% CI) (n=200) 2009 - 2010
1 st (20 th percentile)	1.0	1.0
2 nd (40 th percentile)	1.28 (1.00, 1.65)	1.52 (1.08, 2.14)
3 rd (60 th percentile)	1.61 (1.19, 2.17)	1.66 (1.15, 2.40)
4 th (80 th percentile)	1.45 (0.96, 2.18)	1.36 (0.72, 2.56)
5 th	1.66 (1.24, 2.21)	1.56 (0.95, 2.57)

Proportion of persons in the upper quintiles who report use of hearing aids is 28 to 66% greater than those in the lowest quintile.

However, above the 20th percentile, no trend exists.

Clinical Interpretation

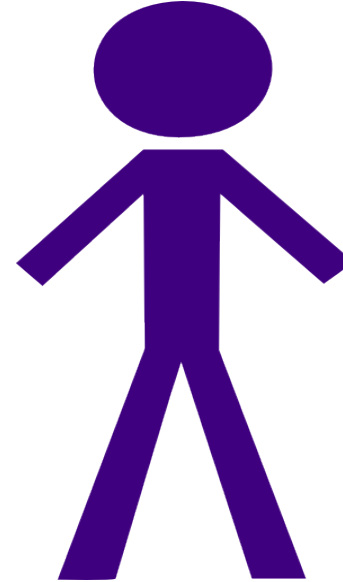
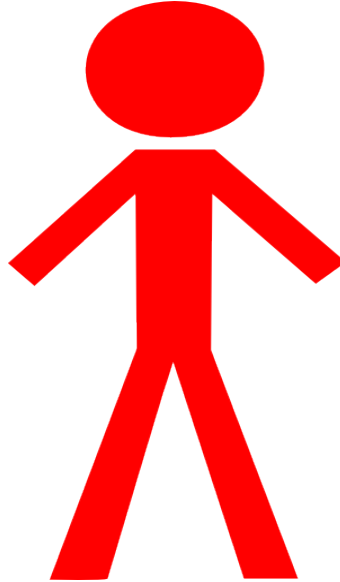
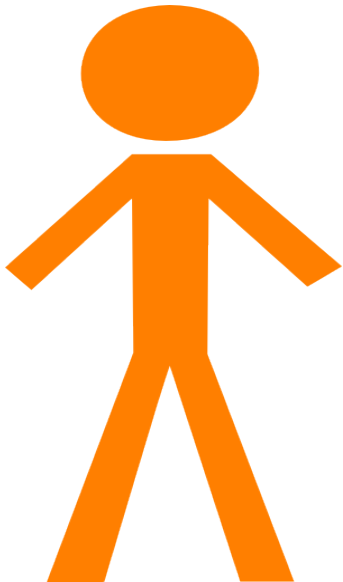
Does not
need
hearing
care.

Needs
hearing
care, but
does not
want it.

Needs
hearing care
& prioritizes
resources to
pay.

Has resources
& needs
hearing care,
but not
enough to be
willing to pay.

Needs
hearing care
but does not
have
resources to
access.



Recommendations



- Focus resources on those who need hearing care but do not have resources to access
(rather than focusing resources on those who are not motivated to use regardless of ability to pay)
- Anticipate that behaviors regarding uptake and use may change not because of affordability per se but because of presence of insurance coverage
- Ensure that the strategies applied allow providers to provide appropriate care