



# Disrupt Audiology: Turning Threats into Opportunities

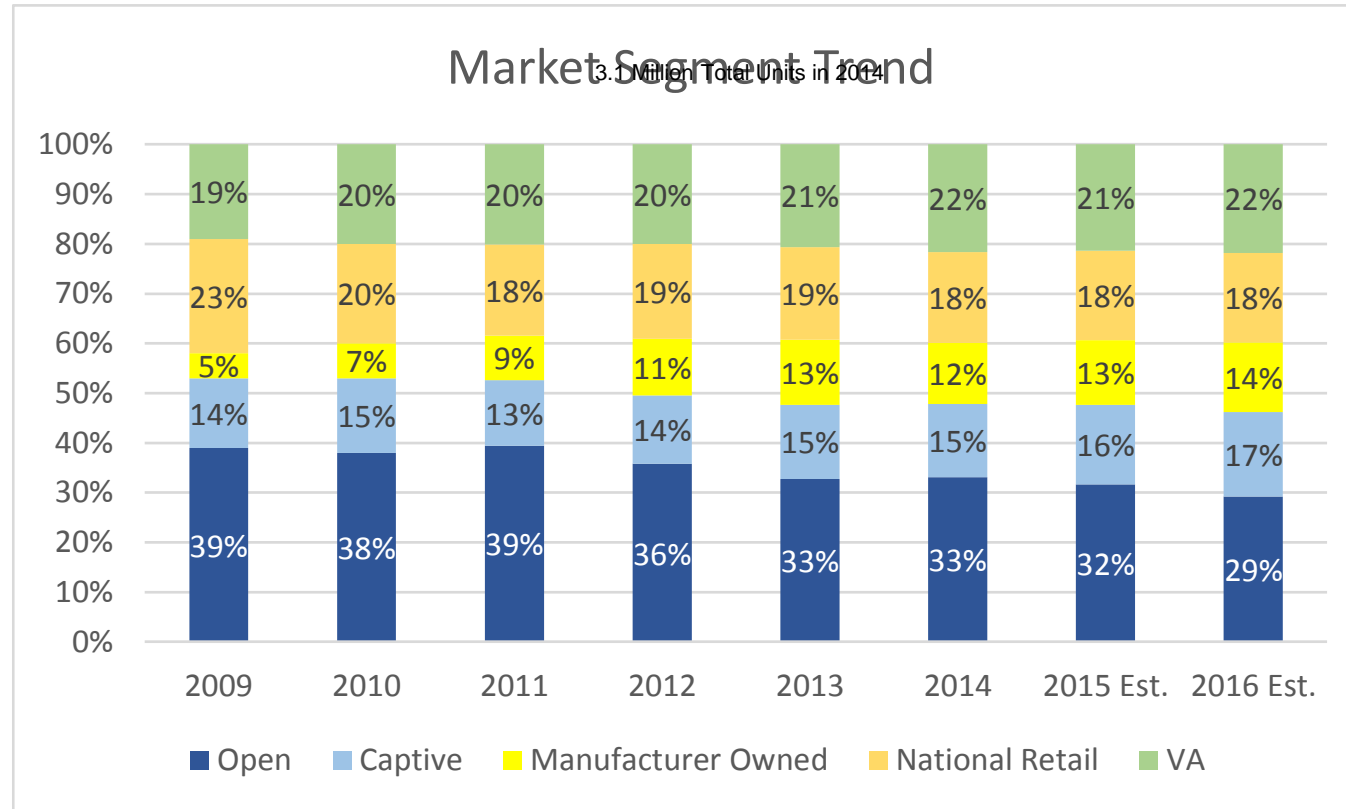
Dave Fabry, Ph.D.  
Vice President, Global Medical Affairs

# US Market Composition



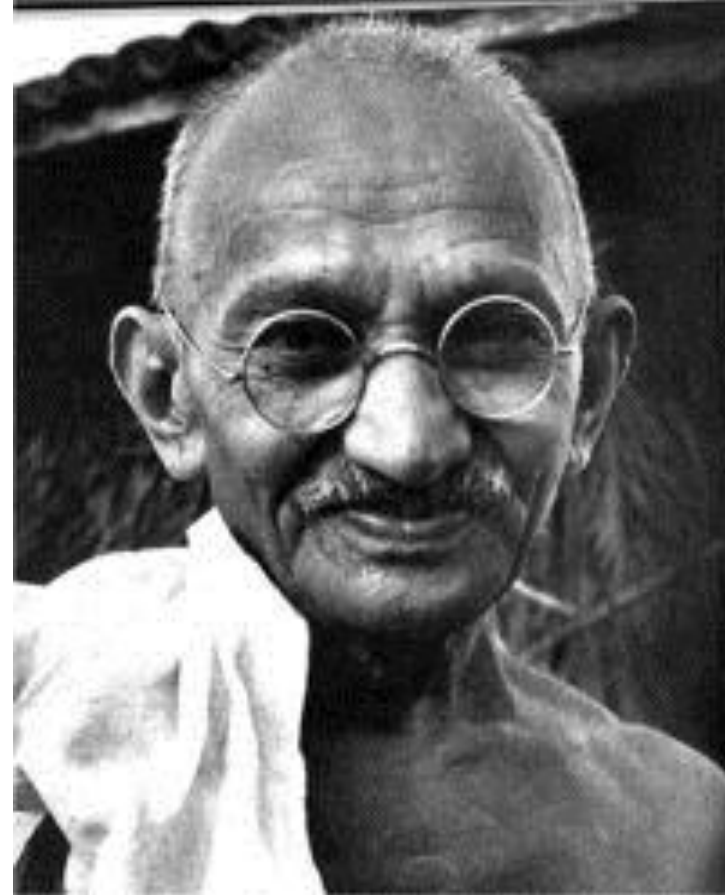
# US Market Overview

## Overall market makeup (2014)



“Be the change that you wish  
to see in the world.”

—Mahatma Gandhi



# 10 Hidden-Gem Careers for 2013 and Beyond

Your dream job could be flying under the radar.

By [Marty Nemko](#)

Jan. 7, 2013 | 8:31 a.m. EST



Marty Nemko

Most people limit their career choices to the well-known: doctor, lawyer, teacher, etc. Here are 10 professions that are not only under-the-radar, but that offer advantages over their better-known counterparts.

Take, for example, the first three, which are all [healthcare careers](#). While they're less top-of-mind than doctor or nurse, they offer major advantages: high patient cure rate, regular hours, few emergencies, and thus, less stress.

**1. Orthodontist.** Unlike many other health care professions, an orthodontist gets to see their patients frequently over months or years, and so they build a relationship with them. Oh, and the average pay is more than \$200,000, according to the Bureau of Labor Statistics. One disadvantage is the amount of school required to become one: dental school followed by orthodontics school plus a residency. For more info, visit <http://www.recruiter.com/careers/orthodontists>.

**2. Audiologist.** The [aging boomers](#) are boosting the job market for these hearing specialists. And today's hearing aids are more effective and smaller, so more patients are likely to be delighted. You get to be called "doctor," although you won't have endured as many years of study associated with medicine stereotypically: If you have a bachelor's degree, the Doctor of Audiology degree requires only three or four years of study. For more information, visit <http://www.bls.gov/ooh/healthcare/audiologists.htm>.

**3. Optometrist.** Our aging population also ensures high demand for these eye experts. Two training options: a four-year post-bachelor's program or a seven-year B.S./O.D. program. For more info, visit <http://www.bls.gov/ooh/healthcare/optometrists.htm#tab-1>.

# A Comparison of Three Doctoral Professions in 2017

	Dentistry	Optometry	Audiology
# of Doctoral Programs	65	23	79
Total Student Enrollment	20,171	6,289	2,400
<b>Av. Student Investment</b>	<b>\$151,000</b>	<b>\$108,000</b>	<b>\$101,000</b>
# of Active Practitioners	151,500	40,600	13,200
<b>% in Private Practice</b>	<b>93%</b>	<b>60%*</b>	<b>&lt;20%*</b>
<b>Mean Annual Income – all practice settings</b>	<b>\$158,300</b>	<b>\$103,900</b>	<b>\$74,890</b>



# U.S. Optometry in 1980

**21,000** optometrists in practice in the country

**90%** either sole owners or partners in private practice



# During the '80's, Some Things Happened...

## **DRAMATIC IMPROVEMENTS IN TECHNOLOGY AND PRODUCTION**

Cost of manufacturing vision care products dropped, improving wholesale and retail margins

## **THE BABY-BOOMERS**

Reached their late thirties and early forties, with their associated need for vision care, increasing demand (contact lenses, refractive surgery)

Increased demand prompted consolidation





## U.S. Optometry in 2017

- 40,600 optometrists in practice in this country
- **10%** earn their living entirely through ownership of a private practice
- 50% run a part-time practice and work for a corporate retailer part-time
- 40% work full time for a corporate retailer
- Average net income has declined during past decade

Dollars

# What we can learn from optometry...

## **OVER 30 YEARS:**

- The population of practicing optometrists increased substantially from 21,000 to 40,600 with increasing demand
- Those earning a living 100% in private practice declined significantly from 90% to 10%
- At the end of this 30 year period, average compensation and job satisfaction have both declined

## **WHY?**

- Corporate consolidation & wage employment

# Today's Dental Profession (2017)

151,050 active practicing dentists in the U.S.

93% are in a private practice

- 90% of these own their own practice either as sole proprietor (75%) or a partner, meaning there is only a small percent of dentists employed by the owners of these private practices

# Preserving Independent Practice: Dentistry

- Private practice allows dentists to practice autonomously and make independent patient care & practice decisions

Private practice has positively impacted income in dentistry

- By lack of participation with third party payers
- And increased reimbursement via private pay

The Baby-Boomer demand for highly lucrative cosmetic dentistry (e.g. braces, whitening, titanium implants) has boosted the earning potential of dentistry dramatically by expanding their scope of practice

# Dentistry more independent than Physicians

“In comparison to physicians, dentists work more independently, have a higher rate of solo practice, and in some cases, their earnings have surpassed the net income of physicians.”

**Elizabeth Mertz, MPA,  
Health Policy Researcher, UCSF**

# IT WON'T HAPPEN TO US...

	2013	2011	2008	2007	2006	2005
Primary Job Title	% of Work Force	% of Work Force	% of Work Force	% of Work Force	% of Work Force	% of Work Force
<b>Clinical Staff Audiologist</b>	59%	61.90%	58.00%	55.00%	52.00%	54.00%
Researcher	2%	1.90%	1.00%	1.00%	2.00%	1.00%
Faculty	7%	3.70%	5.00%	5.00%	7.00%	6.00%
Manager/Supervisor	8%	7.80%	9.00%	10.00%	9.00%	10.00%
Director	6%	7.10%	6.00%	7.00%	8.00%	8.00%
<b>Owner/Partner</b>	<b>10%</b>	<b>12.30%</b>	<b>14.00%</b>	<b>14.00%</b>	<b>14.00%</b>	<b>13.00%</b>
CEO/Executive Director	<1%	<1%	1%	1%	1%	1%

Between 2005 – 2013, salaries for clinical audiologists increased by 21%. During the same time period, salaries for those working in an Independent practice increased by 41%



*“What gets measured gets done”*

- Peter Drucker

# The Common Denominator – “RPH”

Need an “apple to apple” comparison

Need a value that dictates protocol time frames

Need a guideline for scheduling procedures



## Clinical Rate/Hour - Single Provider

	Hearing Clinic	AuD
<b>Gross Margin</b>	\$ 308,250	\$ 436,200
<b>Annual Hours</b>	1900	1900
<b>GM / Hour</b>	\$ 162	\$ 230

# Clinical Hour Calculation

Annual Clinical Hour Worksheet		Adj. Variables
Daily Work Hours	8	8
Daily Prep Time	0	0
Gross Daily Clinical Hours	8	8
Gross Weekly Clinical Hours	40	40
Gross Monthly Clinical Hours	173	173
<b>Gross Annual Clinical Hours</b>	<b>2,080</b>	<b>2,080</b>
<b>Deductions</b>		
<b><u>Vacation</u></b>		
# Days	15	
# Clinical Hrs		-120
<b><u>Holidays</u></b>		
# Days	8	
# Clinical Hrs		-64
<b>Net Annual Clinical Hours per Provider</b>	<b>1,896</b>	<b>1,896</b>
# Providers	1	1
<b>Annual Dept. Clinical Hours</b>	<b>1,896</b>	<b>1,896</b>

# Audiology P&L - \$ - median

	Hearing Clinic	AuD
Median rev	\$ 450,000	\$ 600,000
<b>Service Rev</b>	\$ 45,000	\$ 132,000
<b>Product</b>	\$ 405,000	\$ 468,000
<b>Gross Rev</b>	\$ 450,000	\$ 600,000
<b>CoG</b>	\$ 141,750	\$ 163,800
<b>Gross Margin</b>	\$ 308,250	\$ 436,200
<b>Personnel</b>	\$ 63,000	\$ 114,000
<b>Marketing</b>	\$ 54,000	\$ 30,000
<b>Clinical/Other</b>	\$ 67,500	\$ 90,000
<b>Profit</b>	\$ 123,750	\$ 202,200

## Audiology P&L - %

	Hearing Clinic	AuD
<b>Service Rev</b>	10%	22%
<b>Product</b>	90%	78%
<b>Gross Rev</b>	100%	100%
<b>CoG</b>	32%	27%
<b>Gross Margin</b>	69%	73%
<b>Personnel</b>	14%	19%
<b>Marketing</b>	12%	5%
<b>Clinical/Other</b>	15%	15%
<b>Profit</b>	28%	34%



# Revenue Per Hour (RPH) for a “Standard” Hearing Aid Transaction

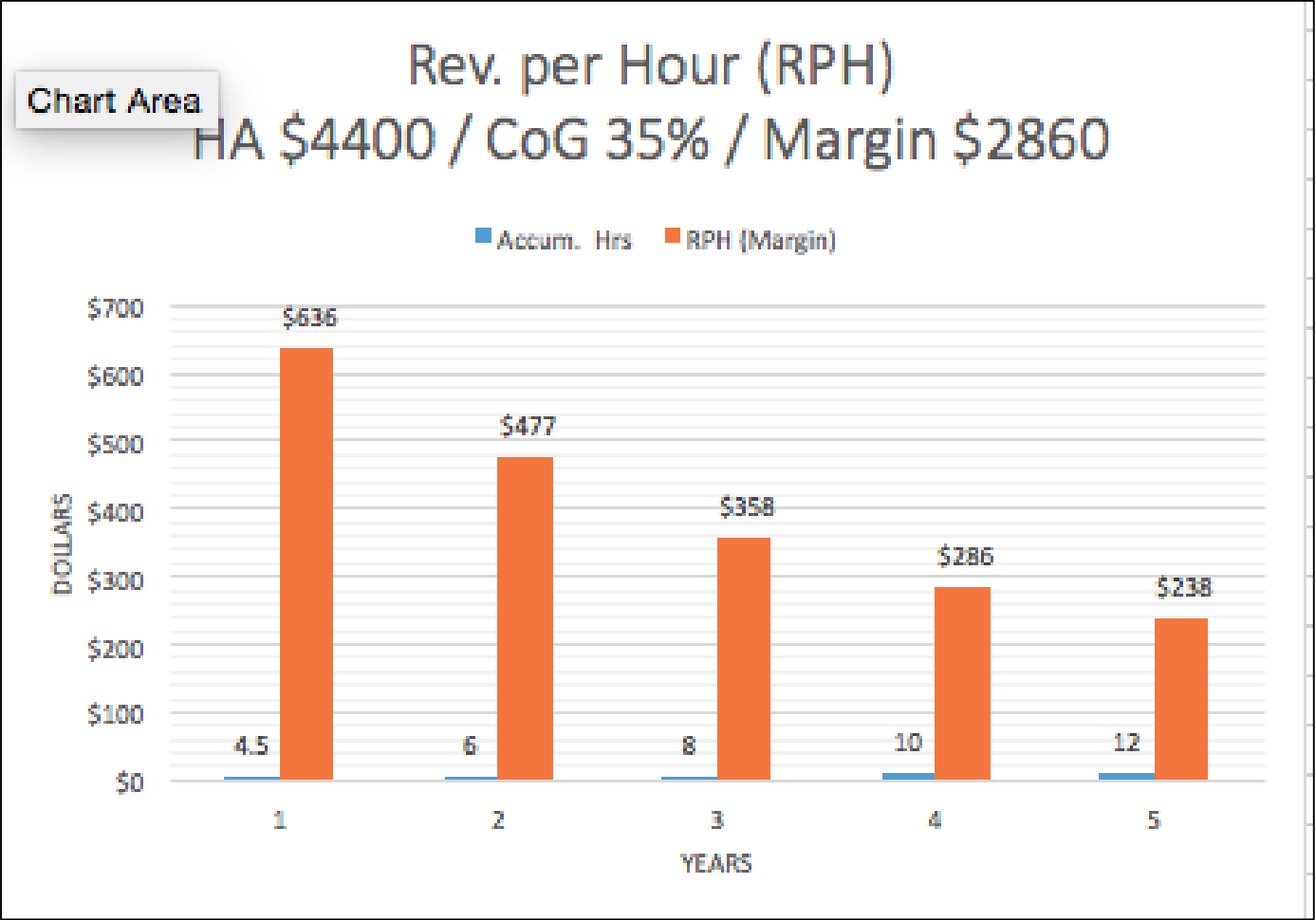
Five year replacement – clinical hours (h) spent by year

Gross Revenue - \$4,400 (ASP \$2,200), CoG 35%

Gross Margin - **\$2,860**

- |             |                     |                              |
|-------------|---------------------|------------------------------|
| • Y1 – 4.5h | Running Total 4.5h  | RPH - $\$2,860/4.5 = \$636$  |
| • Y2 – 1.5h | Running Total 6.0h  | RPH - $\$2,860/6.0 = \$477$  |
| • Y3 – 2.0h | Running Total 8.0h  | RPH - $\$2,860/8.0 = \$358$  |
| • Y4 – 2.0h | Running Total 10.0h | RPH - $\$2,860/10.0 = \$286$ |
| • Y5 – 2.0h | Running Total 12.0h | RPH - $\$2,860/12.0 = \$238$ |

# Standard Hearing Aid Transaction RPH



# RPH, “Premium” Hearing Aid Transaction

Five year replacement – clinical hours (h) spent by year

Gross Revenue - \$6,000 (ASP \$3,000), CoG 45%

Gross Margin - **\$3,300**

- Y1 – 4.5h      Running Total 4.5h      RPH -  $\$3,300/4.5 = \$733$
- Y2 – 1.5h      Running Total 6.0h      RPH -  $\$3,300/6.0 = \$550$
- Y3 – 2.0h      Running Total 8.0h      RPH -  $\$3,300/8.0 = \$413$
- Y4 – 2.0h      Running Total 10.0h      RPH -  $\$3,300/10.0 = \$330$
- Y5 – 2.0h      Running Total 12.0h      RPH -  $\$3,300/12.0 = \$275$

# RPH, Basic Hearing Aid Transaction

Five year replacement – clinical hours (h) spent by year

Gross Revenue - \$3,000 (ASP \$1,500), CoG 33%

Gross Margin - **\$2,000**

- Y1 – 4.5h      Running Total 4.5h      RPH -  $\$2,000/4.5 = \$444$
- Y2 – 1.5h      Running Total 6.0h      RPH -  $\$2,000/6.0 = \$333$
- Y3 – 2.0h      Running Total 8.0h      RPH -  $\$2,000/8.0 = \$250$
- Y4 – 2.0h      Running Total 10.0h      RPH -  $\$2,000/10.0 = \$200$
- Y5 – 2.0h      Running Total 12.0h      RPH -  $\$2,000/12.0 = \$167$

# RPH, Entry Hearing Aid Transaction

Five year service plan – clinical hours (h) spent by year

Gross Revenue - \$2,000 (ASP \$1,000), CoG 25%

Gross Margin - **\$1,500**

- Y1 – 4.5h      Running Total 4.5h      RPH -  $\$1,500/4.5 = \$333$
- Y2 – 1.5h      Running Total 6.0h      RPH -  $\$1,500/6.0 = \$250$
- Y3 – 2.0h      Running Total 8.0h      RPH -  $\$1,500/8.0 = \$188$
- Y4 – 2.0h      Running Total 10.0h      RPH -  $\$1,500/10.0 = \$150$
- Y5 – 2.0h      Running Total 12.0h      RPH -  $\$1,500/12.0 = \$125$

# *Improve RPH through Efficiency of Care*



# Ways to Improve Efficiency of Care

- Learn from Dentistry and Optometry
- Use of Support Personnel
- TeleHealth/TeleAudiology

# Ways to Improve Efficiency of Care

- Learn from Dentistry and Optometry
- Use of Support Personnel
- TeleHealth/TeleAudiology

# Notable Differences - Dental

## Efficiencies

- Multiple operatories
- Less time per patient
- 5 staff including hygienist and assistant
- Hygienist brings in \$180K annually at a cost of \$65,000 (\$32hr)

Procedures	Charge	DMD Time	RPH
• Fillings	\$200-\$300	.85	\$235-\$353
• Crowns	\$1000-\$1500	3.4	\$294-\$441
• Root canals	\$700-\$1200	3.4	\$221-\$352
• Extractions	\$150-\$200	.55	\$268-\$357
• Whitening	\$250		

# Ways to Improve Efficiency of Care

- Use of Support Personnel
- Learn from Dentistry and Optometry
- TeleHealth/TeleAudiology

# A Few Strategies

- **Bundled Model**
- Pay as You Go (based on RPH)
- Third-Party Pay (e.g. TruHearing)
- Concierge Model (migratory patients)
- Predictably Irrational Pricing (Behavioral Economics – Dan Ariely)
- Support Personnel (Improved Clinical Efficiency)
- Lease/Subscription Model

# For example...

- If you fit, on average, 20 new units/month (10 patients), and can reduce face-to-face follow-up visits by one during the first year, you open appointment slots for new patients (10/month; 120/year)

## For example...

- If you fit, on average, 20 new units/month (10 patients) , and can reduce face-to-face follow-up visits by one during the first year, you open appointment slots for new patients (10/month; 120/year)
- Based on average US standard pricing (\$2200/ear), binaural fittings, and 80% close rate for new patients, this can generate \$422,400 additional gross revenue annually for a practice

# Standard Hearing Aid Transaction RPH

Five year service plan – clinical hours (h) spent by year

Gross Revenue - \$4,400 (ASP \$2,200), CoG 35%

Gross Margin - **\$2,860**

- |             |                     |                              |
|-------------|---------------------|------------------------------|
| • Y1 – 4.5h | Running Total 4.5h  | RPH - $\$2,860/4.5 = \$636$  |
| • Y2 – 1.5h | Running Total 6.0h  | RPH - $\$2,860/6.0 = \$477$  |
| • Y3 – 2.0h | Running Total 8.0h  | RPH - $\$2,860/8.0 = \$358$  |
| • Y4 – 2.0h | Running Total 10.0h | RPH - $\$2,860/10.0 = \$286$ |
| • Y5 – 2.0h | Running Total 12.0h | RPH - $\$2,860/12.0 = \$238$ |



# Standard Hearing Aid Transaction RPH + Telehealth

Five year service plan – clinical hours (h) spent by year

Gross Revenue - \$4,400 (ASP \$2,200), CoG 35%

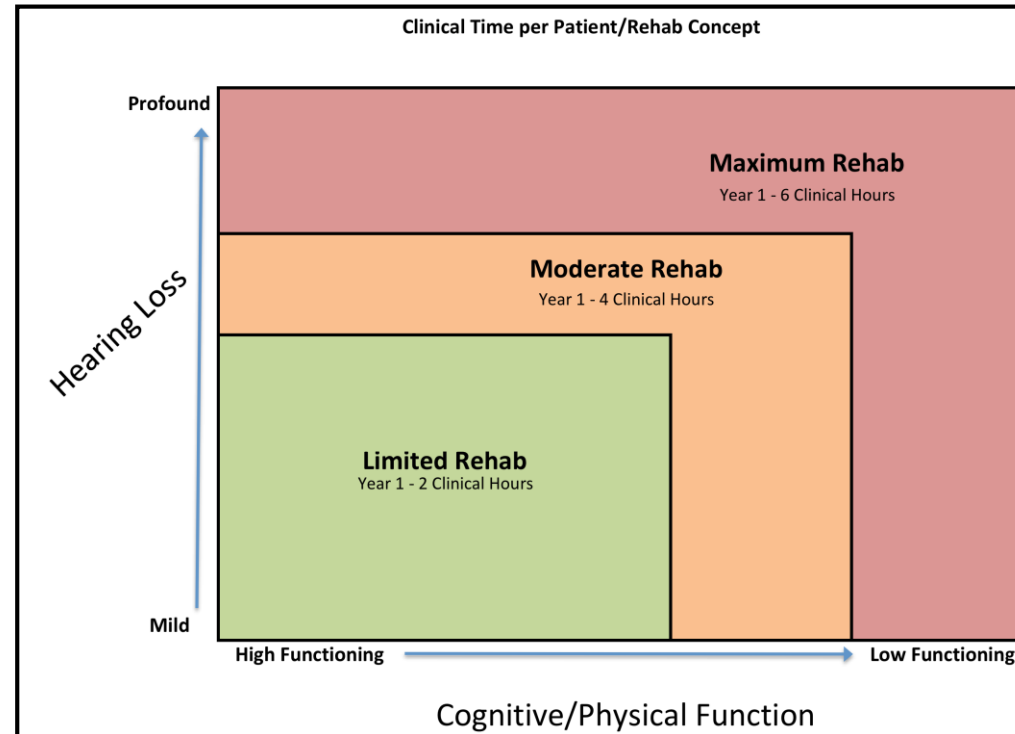
Gross Margin - **\$2,860**

- |              |                    |                             |
|--------------|--------------------|-----------------------------|
| • Y1 – 3.5 h | Running Total 3.5h | RPH - $\$2,860/3.5 = \$817$ |
| • Y2 – 1.0h  | Running Total 4.5h | RPH - $\$2,860/4.5 = \$635$ |
| • Y3 – 1.0h  | Running Total 5.5h | RPH - $\$2,860/5.5 = \$520$ |
| • Y4 – 2.0h  | Running Total 7.5h | RPH - $\$2,860/7.5 = \$381$ |
| • Y5 – 2.0h  | Running Total 9.5h | RPH - $\$2,860/9.5 = \$301$ |

# A Few Strategies

- Bundled Model
- Pay as You Go (based on RPH)
- Third-Party Pay (e.g. TruHearing)
- Concierge Model (migratory patients)
- Predictably Irrational Pricing (Behavioral Economics – Dan Ariely)
- Support Personnel (Improved Clinical Efficiency)
- Lease/Subscription Model

# The Current Conundrum



# Notable Differences - Optometry

## Efficiencies – Key Metrics

- Median 1993 evals (1.1 per hour) annually
- Average \$310 per eval
- 43 exams per 100 active patients annually
- 4000+ patients

61% of rev is from eyewear

- 43% glasses
- 18% contacts

Medical eyecare 17%

- Glaucoma
- Dry eye
- Ocular allergy
- Cataract co-management

Ave cost for exam is \$127 collect \$79 (65% are discounted)

# Ophthalmological Case Complexity Billing

92002 Ophthalmological services: medical examination and evaluation with initiation of diagnostic and treatment program; intermediate, new patient

92004 Ophthalmological services: medical examination and evaluation with initiation of diagnostic and treatment program; comprehensive, new patient, 1 or more visits

92012 Ophthalmological services: medical examination and evaluation, with initiation or continuation of diagnostic and treatment program; intermediate, established patient

92014 Ophthalmological services: medical examination and evaluation, with initiation or continuation of diagnostic and treatment program; comprehensive, established patient, 1 or more visits

## Optometry per Hour per Exam Type

	<b>Fee</b>	<b>Collected</b>	<b>Time</b>	<b>RPH</b>
Level 1	\$95	\$62	.25hr	\$248
Level 2	\$115	\$75	.25hr	\$300
Level 3	\$140	\$90	.50hr	\$180
Level 4	\$450	\$292	1.0hr	\$290

Standard Charge (E/M) Medical Services is \$105 per .25hr or \$420  
(\$280 collected)

# AuD per Hour per Procedure

Cochlear Implants	\$217 (includes HA) \$71 (no HA)
Tinnitus	\$184 (includes HA) \$137 (no HA)
Balance (VNG / Posturography)*	\$218 (includes HA) \$121 (no HA)

\* Est 10 procedures

# A Few Strategies

- Bundled Model
- Pay as You Go (based on RPH)
- **Third-Party Pay (e.g. TruHearing)**
- Concierge Model (migratory patients)
- Predictably Irrational Pricing (Behavioral Economics – Dan Ariely)
- Support Personnel (Improved Clinical Efficiency)
- Lease/Subscription Model



# A Few Strategies

- Bundled Model
- Pay as You Go (based on RPH)
- Third-Party Pay (e.g. TruHearing)
- **Concierge Model (migratory patients)**
- Predictably Irrational Pricing (Behavioral Economics – Dan Ariely)
- Support Personnel (Improved Clinical Efficiency)
- Lease/Subscription Model

# Service Packages

## Worry-Free Service Package

One Year	Two Year	Three Year
 <b>\$475</b> <del>Normally \$685</del>	 <b>\$875</b> <del>Normally \$1070</del>	 <b>\$975</b> <del>Normally \$2080</del>
6 Complimentary Visits Complimentary Annual Reprogramming of Hearing Aids 75% Off Battery Costs	8 Complimentary Visits Complimentary Annual Reprogramming of Hearing Aids 75% Off Battery Costs \$250 Off Next Binaural Purchase (Advanced or Premium Treatment Plan)	<b>Complimentary</b> Unlimited Visits <b>Complimentary</b> 100 Batteries Per Year <b>Complimentary</b> Cerumen Management <b>Complimentary</b> Annual Reprogramming and Recalibration of Hearing Aids <b>\$500 OFF</b> Next Binaural Purchase (Advanced or Premium Treatment Plan) Repairs <b>50% OFF</b>

**BEST VALUE**



# Develop a residual income model

Use telehealth to deliver improved service and convenience to patients

This service can be easily packaged and productized to become an ongoing subscription service with a recurring financial payment.

For example, charge \$250/year for the service

If 300 patients see value in the service you would generate \$75,000 per year in service revenue

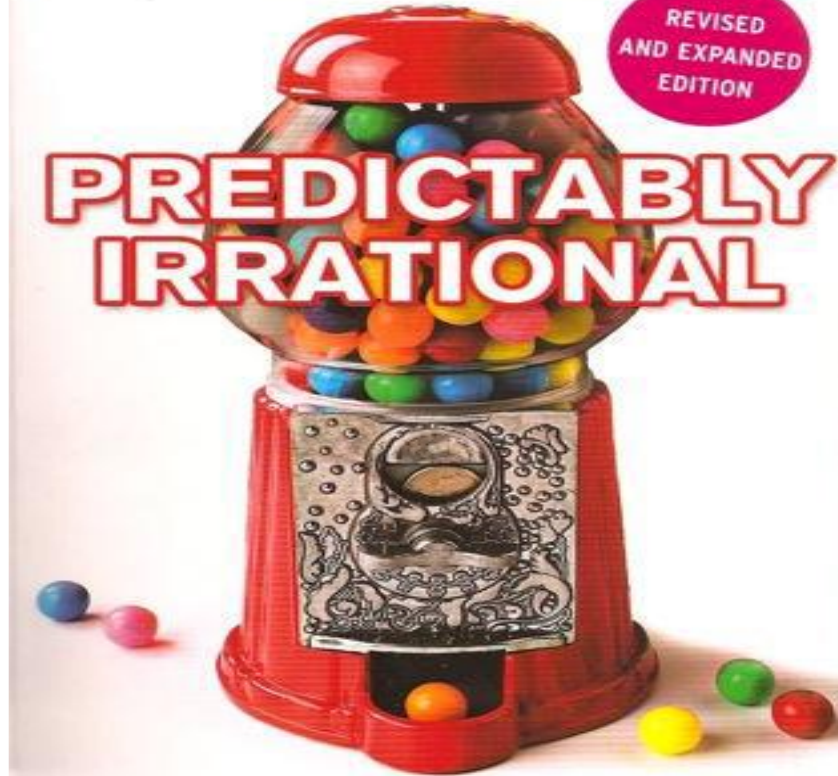
# A Few Strategies

- Bundled Model
- Pay as You Go (based on RPH)
- Third-Party Pay (e.g. TruHearing)
- Concierge Model (migratory patients)
- Predictably Irrational Pricing (Behavioral Economics – Dan Ariely)
- Support Personnel (Improved Clinical Efficiency)
- Lease/Subscription Model

DAN ARIELY

REVISED  
AND EXPANDED  
EDITION

# PREDICTABLY IRRATIONAL

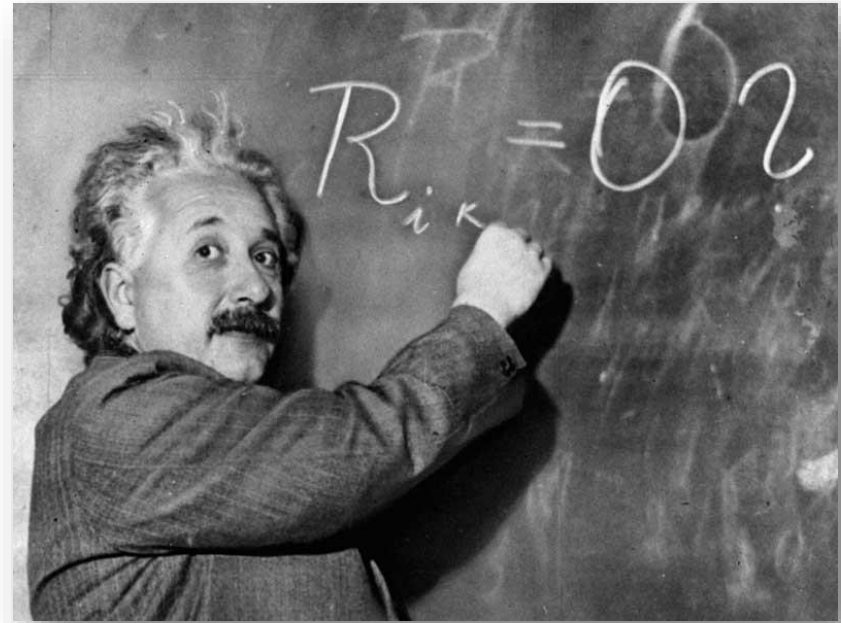


The Hidden Forces that Shape Our Decisions

# The Truth About Relativity

*Why everything is relative even when it shouldn't be*

We don't have an internal value meter that tells us how much things are worth, rather we focus on the advantages of one thing over another



# The Truth about Relativity

You choose:

- a) A weekend in Rome with a free breakfast
- b) A weekend in Paris with a free breakfast



You choose:

a) A weekend in Rome with a free breakfast

b) A weekend in Paris with a free breakfast

c) A weekend in Paris without a free breakfast

Add in X “free” telehealth sessions on premium product, versus \$250 (or some assigned value) for mid-level products



# A Few Strategies

- Bundled Model
- Pay as You Go (based on RPH)
- Third-Party Pay (e.g. TruHearing)
- Concierge Model (migratory patients)
- Predictably Irrational Pricing (Behavioral Economics – Dan Ariely)
- **Support Personnel (Improved Clinical Efficiency)**
- Lease/Subscription Model

## Audiology P&L - \$ - median

	Hearing Clinic	AuD
Median rev	\$ 450,000	\$ 600,000
<b>Service Rev</b>	\$ 45,000	\$ 132,000
<b>Product</b>	\$ 405,000	\$ 468,000
<b>Gross Rev</b>	\$ 450,000	\$ 600,000
<b>CoG</b>	\$ 141,750	\$ 163,800
<b>Gross Margin</b>	\$ 308,250	\$ 436,200
<b>Personnel</b>	\$ 63,000	\$ 114,000
<b>Marketing</b>	\$ 54,000	\$ 30,000
<b>Clinical/Other</b>	\$ 67,500	\$ 90,000
<b>Profit</b>	\$ 123,750	\$ 202,200

# A Few Strategies

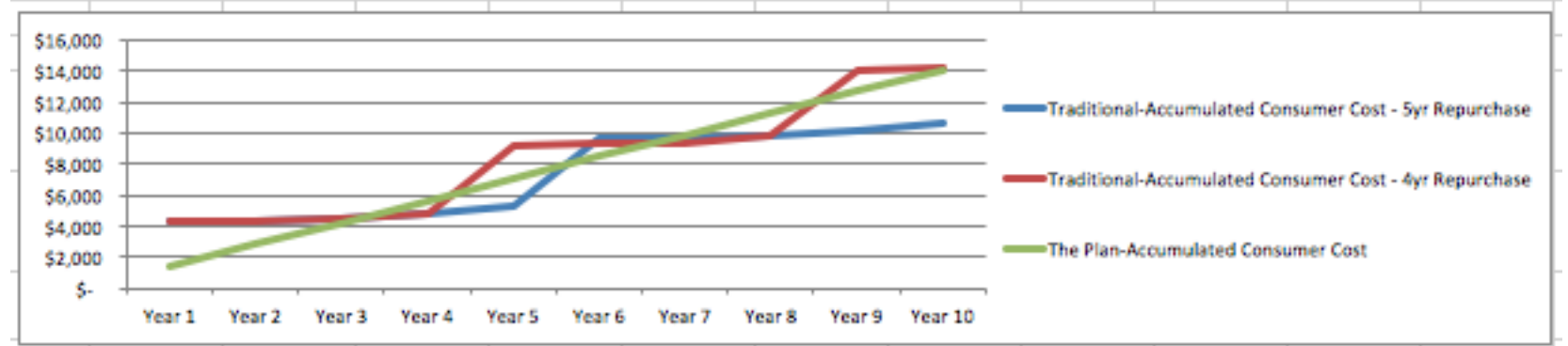
- Bundled Model
- Pay as You Go (based on RPH)
- Third-Party Pay (e.g. TruHearing)
- Concierge Model (migratory patients)
- Predictably Irrational Pricing (Behavioral Economics – Dan Ariely)
- Support Personnel (Improved Clinical Efficiency)
- Lease/Subscription Model

# Leasing Program

**Red Line** ———

Traditional Model 4yr  
Repurchase  
ASP \$3000  
COG 40%  
Consumer 10 year spend  
\$14,200  
Provider RPH \$ 350

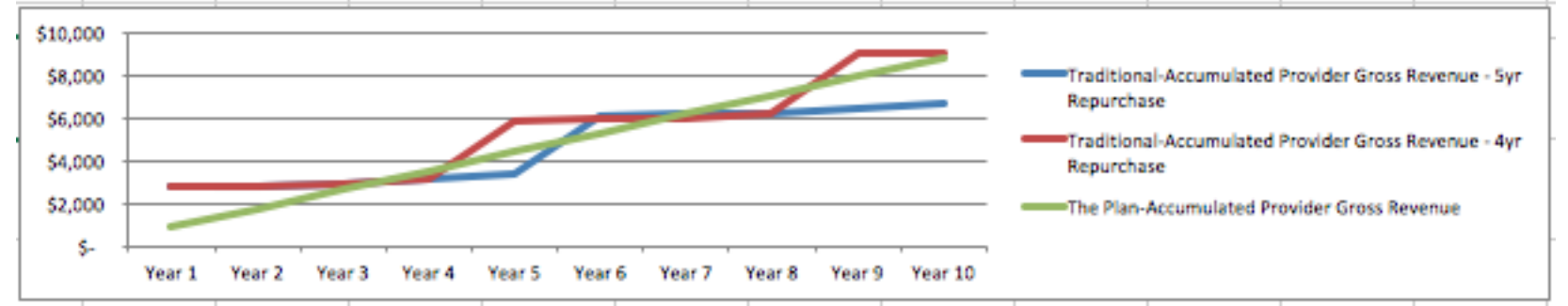
Consumer Cost



**Green Line** ———

Leasing New Product 24-36  
mnths  
Annual Test/Programming  
\$175  
Monthly Consumer Cost \$50  
COG 50%  
Consumer 10 year spend  
\$13,750  
Provider RPH \$337

Provider Reimbursement



# A Few Strategies

- Bundled Model
- Pay as You Go (based on RPH)
- Third-Party Pay (e.g. TruHearing)
- Concierge Model (migratory patients)
- Predictably Irrational Pricing (Behavioral Economics – Dan Ariely)
- Support Personnel (Improved Clinical Efficiency)
- Lease/Subscription Model

## Summary

- Other professions, including dentistry and optometry, provide evidence for successful private practice models
- Benchmarking “revenue per hour” is essential to knowing how (and if) success is possible
- Focus on professional service – not just hearing aids
- There are numerous strategies that may be used to improve clinical efficiency without compromising patient satisfaction and benefit
- TeleAudiology and use of support personnel are two key components for the future