

The Eye-economics of

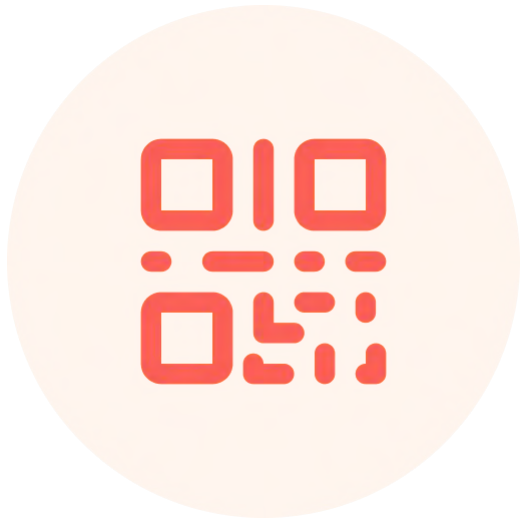
MYOPIA **MANAGEMENT/** **CONTROL**

A Micro and Macro Deep Dive

Aaron Neufeld, O.D.



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#26491959**

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All Relevant Relationships have been mitigated.

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- Alcon - Speaker
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- Vyluma - Advisory Board/Consultant
- Movu - Consultant/KOL
- Aloha - Speaker/KOL
- Various VC/PE Funds - Consultant

Ownership/Equity:

- ODs on Finance LLC
- ODOF Ventures LLC
- EyeDock LLC

Bio

- Multi-Practice Owner
- RE/Angel Investor
- Consultant/Analyst



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Bio



The Eye-economics of

MYOPIA **MANAGEMENT/** **CONTROL**

A Micro and Macro Deep Dive

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OBJECTIVES

01



Fully understand
the extent of
myopia
prevalence at the
macroeconomic
level

02



Fully understand
the implications
of myopia
prevalence at the
microeconomic
level

03



Teach
practitioners best
myopia control
practices based
on these
understandings

Economic Lens:

- *Microeconomics* → how individuals, families, and practices make decisions.
- *Macroeconomics* → healthcare systems, workforce productivity, and education impact.



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Who Practices Myopia Management/Control regularly in their practices?

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The Extent of Myopia at **THE MACRO LEVEL**





As of 2023, myopia affects nearly 1/3rd of the world's population!*

01

2020 Data
>19M children myopic

02


Based off of NIH and Myopia Institute data

Myopia is most prevalent in East and South Asian countries

- Some regions have an 80% prevalence rate!
- US not far behind

Based off of NIH and Myopia Institute data





Annual direct costs of myopia (including examinations, spectacles and lenses, LASIK, care for complications such as cataracts, retinopathy and glaucoma) were estimated to be \$358.7 billion in 2019 and projected to rise to **\$870 billion in 2050.**

**UNCORRECTED MYOPIA COST GLOBAL ECONOMY
US\$244 BILLION IN LOST PRODUCTIVITY IN 2015****

*20/20 Magazine, **Brian Holden Vision Institute

MYOPIA IS A PUBLIC HEALTH ISSUE



Elderly + rural individuals

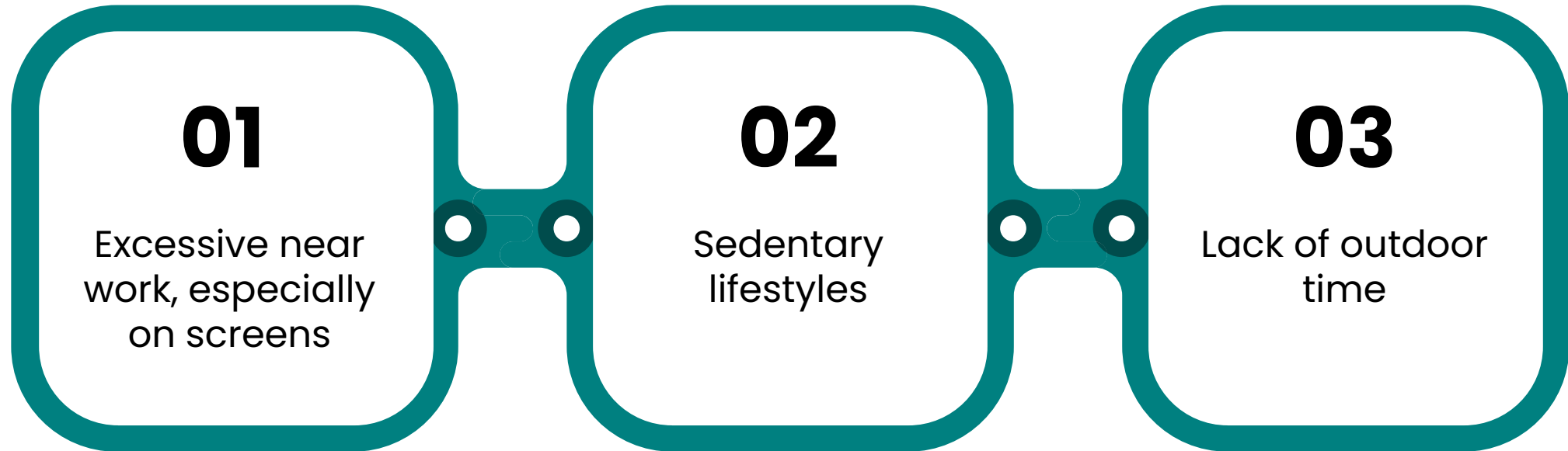


Can lead to

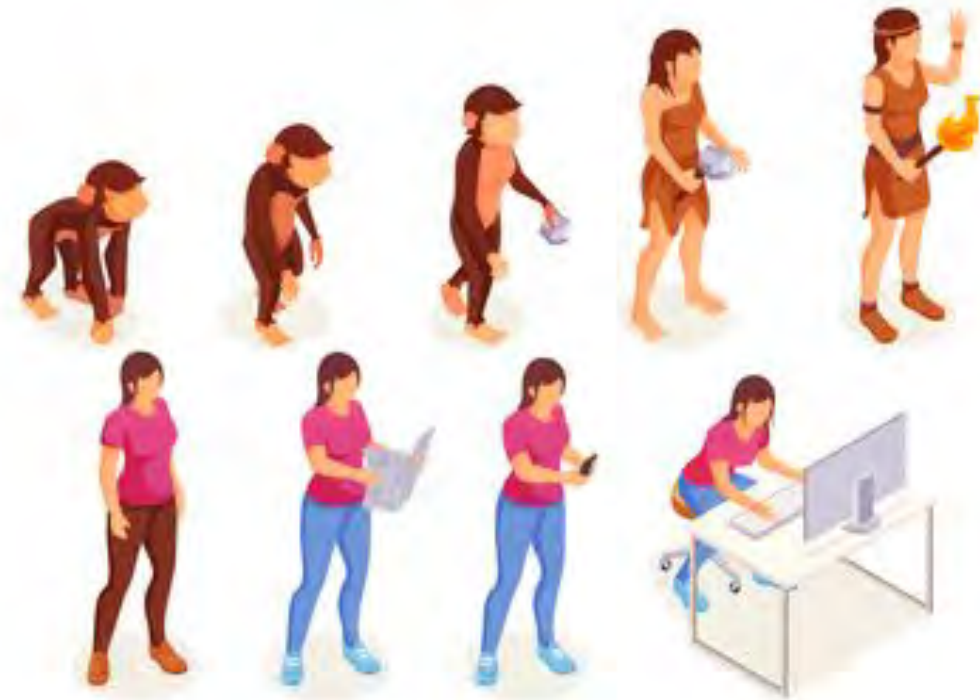
- Ocular health issues
- Accidents
- Social isolation
- Financial hardship



It is widely accepted that three major environmental changes have contributed to the growing prevalence of myopia in children



THIS WASN'T PART OF THE PLAN



The Root Cause of the Myopia Epidemic in Kids

- **Environmental Shift:** Myopia rates have skyrocketed in the last two decades, and the strongest correlating lifestyle change is a massive increase in **screen time** (phones, tablets, gaming) coupled with **reduced outdoor time**.

- **Mechanism in the Eye:**

- **Near-Focus Demand**
- **Light Deficiency**



Biochemical & Neurological Mechanisms of Gambling

Reward Pathway Activation: Gambling taps into the **mesolimbic dopamine system** (ventral tegmental area → nucleus accumbens).

- **The Circuit:** The **mesolimbic dopamine system** is the brain's central reward pathway. It begins in the **ventral tegmental area (VTA)** of the midbrain, where dopamine-producing neurons live. These neurons project forward into the **nucleus accumbens (NAc)** - a structure in the basal forebrain often called the brain's "pleasure center."
- **Dopamine Release:** When a person gambles and experiences the *anticipation* of a win, the VTA releases dopamine into the nucleus accumbens. This creates a surge of motivation and reinforcement, teaching the brain: *"Do this again, it might pay off."*



Biochemical & Neurological Mechanisms of Gambling



- **Intermittent Rewards:** The brain gets small, unpredictable “hits” of dopamine when there’s a chance of winning. This *variable-ratio reinforcement* schedule is the most addictive form of behavioral conditioning known.
- **Result:** Compulsive behavior - the brain craves the next “hit,” even when losses outweigh wins.

Smartphones & Tablets Use the Same Dopamine System

- **Built-In Reward Loops:** Social media notifications, infinite scroll, likes, streaks, and app “badges” mimic gambling’s **intermittent reward structure**.
- **Neurobiological Impact:** Each ping, scroll, or like creates a **dopamine spike**, reinforcing the behavior and encouraging kids to keep checking their devices.
- **Addictive by Design:** Tech companies engineer these systems to maximize “time on device,” effectively hijacking the same neurological pathways as casinos.



How This Fuels the Myopia Epidemic

- **Excess Screen Time → Less Outdoor Time:** The dopamine-driven compulsion keeps children indoors, glued to screens, drastically reducing the hours they spend outdoors in protective sunlight.
- **Cumulative Effect:**
 1. **More near work** → promotes axial elongation.
 2. **Less retinal dopamine from sunlight** → removes the natural growth “stop signal.”
 3. **Reinforced addictive use** → ensures the cycle continues daily, often starting in early childhood.

Generation Z and Younger: The “Social & Health Experiment”

Born with the Smartphone: For Gen Z and younger, smartphones were available almost as soon as they developed the motor skills to use them. Unlike past generations, screen engagement has been a **constant from early development.**

An Unintended Experiment: This is the first generation raised in an environment where:

- **Behavioral addiction** (to devices) is normalized from early childhood.
- **Physiological consequences** (skyrocketing myopia rates, obesity from inactivity, sleep disruption) are manifesting at scale.
- **Social/mental health effects** (attention span erosion, increased anxiety, compulsive reward-seeking) are becoming apparent.

01

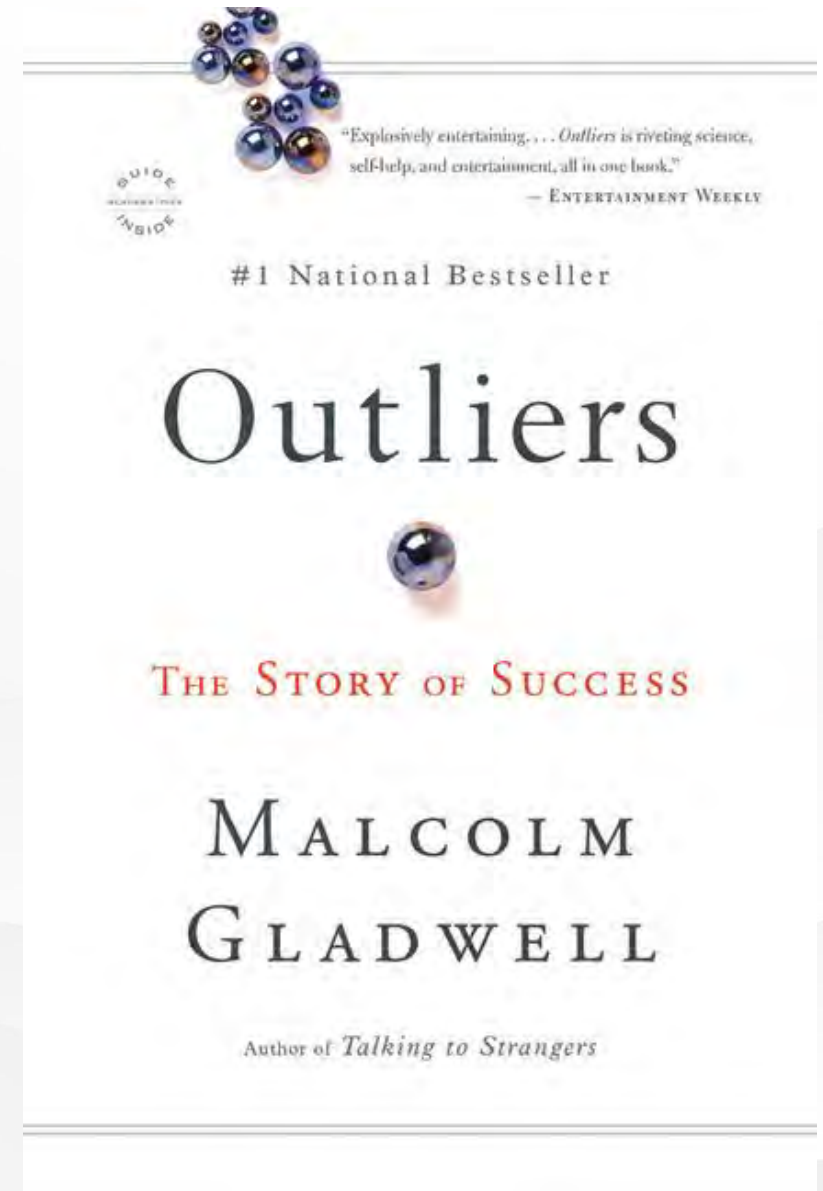
According to a Hong Kong study by the NIH, lower SES children more likely to develop myopia.

02

Accessibility Discussion

Greater good OR Greater dollar?

Poll time...



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What is best for us as practitioners and MM/C specialists?

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LET'S TALK ABOUT THE US...

Current census data shows



Largest Population Proportion of Children

Utah, Texas, and Idaho



Greatest Number of Children

California, Texas, Florida, New York, and Illinois, and therefore the greatest number of children with myopia

MYOPIA IN THE US



**Urban Myopia
Prevalence**

41.0%



**Rural Myopia
Prevalence**

15.7%

Any ventures why?

MYOPIA IN THE US

Keep this number in **mind** as we run through metrics!

If there are 19.5 million myopic children, and 70,000 ODs/OMDs...



278

MYOPIC
CHILDREN

FOR EVERY

1

EYECARE PROVIDER

Types of MM/C

**Pharmacological:
Low dose Atropine**

1

2

3

Environmental

4

Spectacles:

- **Defocus Incorporated Multiple Segments (DIMS)**
- **Highly Aspheric Lenslets (HALs)**

Contact Lenses:

- **Orthokeratology**
- **Soft Multifocal Contact Lenses**

Part II

IMPLICATIONS OF MYOPIA MANAGEMENT/CONTROL AT **THE MICROECONOMIC LEVEL**



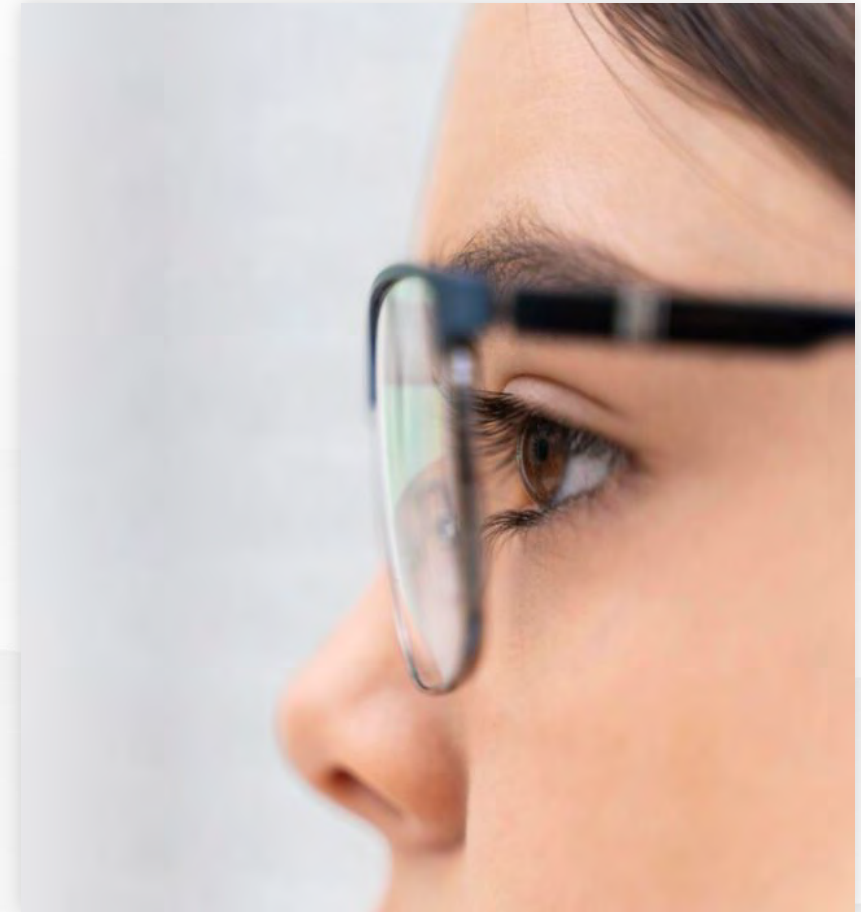
POLL

What do you charge for MM/C in your practice?

Note #1: If you don't have a global fee, take an average

Note #2: This is not collusion, checked with my lawyer :)

- 0 - \$750
- \$750-\$1250
- \$1250-\$1750
- \$1750-\$2250
- >\$2250



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What do you charge for MM/C in your practice?

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THE WILD WEST OF MYOPIA MANAGEMENT/CONTROL FEES



No Insurance



**No
Competition**



No Rules

THE WILD WEST OF MYOPIA **MANAGEMENT/CONTROL FEES**

What are ODs charging?

Anywhere from \$25 to \$5000

Average 1st yr MM/C cost = ~\$2000

LTV* of MM/C pt = \$7437

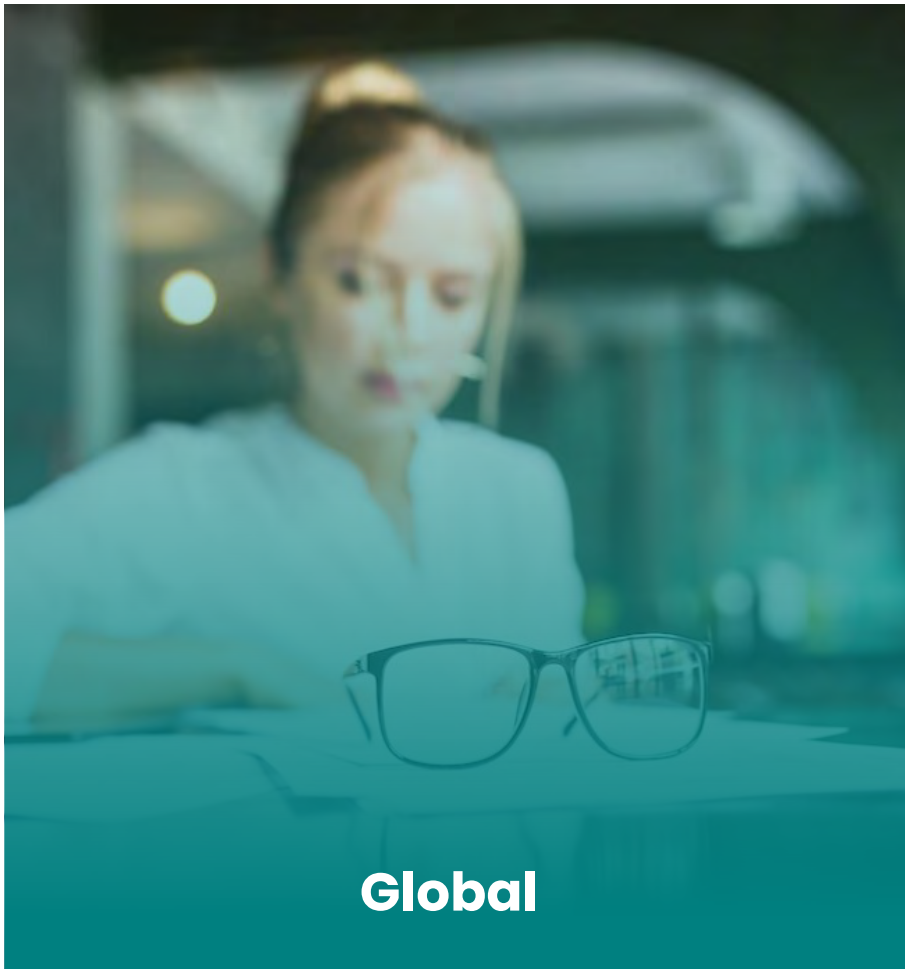
Consider reimbursement for
non-complicated cataract
surgery **(66984) = \$654**



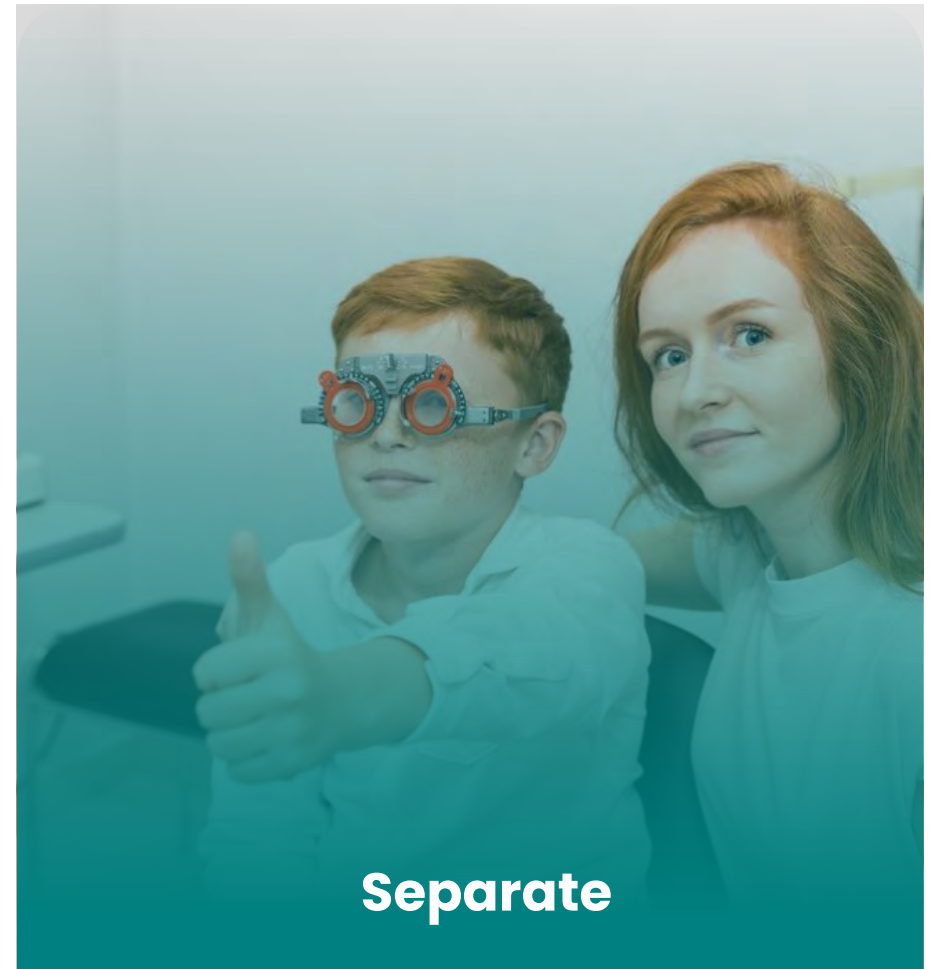
***LTV = lifetime value**

POLL

Do you do a global fee or individual (ortho-k, SCL, LDA priced separately) in your practice?



Global



Separate

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Do you do a global fee or individual (ortho-k, SCL, LDA priced separately) in your practice?

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THE WILD WEST OF MYOPIA **MANAGEMENT/CONTROL FEES**



Global Fee

Reflect overall expertise/service



Separate Fees

Distinctly highlight each offering



Materials

- Separate - allow VCP benefits?
- Included

Disclaimers
 1. The inputs, including pricing/fees, are those determined and used by the eye care professional.
 2. Estimated gross profits provided for illustrative purposes only. Does not guarantee actual results.
 3. No drop out included.
 4. Does not factor in price changes.

	Myopia Correction1			Myopia Control2	Myopia Management	
	<i>Eyeglass Only</i>	<i>Monthly Replacement Contact Lenses</i>	<i>Daily Disposable Contact Lenses</i>	<i>MiSight 1 day Myopia Control Program</i>	<i>Ortho-k Myopia Management Program</i>	<i>Atropine Myopia Management Program</i>
input per eye care professional						
Purchase Behavior Dynamics	Purchase Behavior Dynamics					
Average elapsed months between eye exams	24	18	13	12	14	14
Average elapsed months between eyeglass purchases	28	36	36	36	60	24
Average collected exam fee	100	150	150	500	350	250
Year 1 ortho-k fee					1200	
Annual contact lens / atropine purchase	0	250	560	1250	500	468
Global fee				1750	2050	718
Average eyewear purchase	300	175	175	175	175	175

Time for money **VS** COGs/time for money

	Myopia Correction ¹			Myopia Control ²	Myopia Management		
	<i>Eyeglass Only</i>	<i>Monthly Replacement Contact Lenses</i>	<i>Daily Disposable Contact Lenses</i>	<i>MiSight 1 day Myopia Control Program</i>	<i>Ortho-k Myopia Management Program</i>	<i>Atropine Myopia Management Program</i>	
Six-Year Activity	Six-Year Activity						
Eye exams	3	4	5	6	5	5	
Eyewear purchases	2.6	2	2	2	1	3	
Contact lens purchases	0	5	5	6	3.5	0	

Higher Compliance

	Myopia Correction1			Myopia Control2	Myopia Management		
	<i>Eyeglass Only</i>	<i>Monthly Replacement Contact Lenses</i>	<i>Daily Disposable Contact Lenses</i>	<i>MiSight 1 day Myopia Control Program</i>	<i>Ortho-k Myopia Management Program</i>	<i>Atropine Myopia Management Program</i>	
Six-Year Gross Revenue	Six-Year Gross Revenue						
Eye exam fees	300	600	750	3000	2950	1250	
Eyewear revenue	780	350	350	350	175	525	
Contact lens revenue	0	1250	2800	7500	1750	0	
Total gross revenue (6 years)	1080	2200	3900	10850	4875	1775	
Six-Year Gross Profit	Six-Year Gross Profit						
Eye exam fees	300	600	750	3000	2950	1250	
Eyewear purchases (@61%)	476	214	214	214	107	320	
Contact lens purchases (@47%)	0	588	1316	3000	875	0	
Total gross profit (6 years)	776	1401	2280	6214	3932	1570	

Myopia Correction ¹			Myopia Control ²	Myopia Management	
<i>Eyeglass Only</i>	<i>Monthly Replacement Contact Lenses</i>	<i>Daily Disposable Contact Lenses</i>	<i>MiSight 1 day Myopia Control Program</i>	<i>Ortho-k Myopia Management Program</i>	<i>Atropine Myopia Management Program</i>

	Annual average gross profit					
Annual average gross profit	\$129	\$234	\$380	\$1,036	\$655	\$262

THE WILD WEST OF MM/C FEES

How do we structure our fees?

Consider 3 Factors

Volume

Household income

Education



Rural Myopia Prevalence

15.7%



Urban Myopia Prevalence

41.0%

THE WILD WEST OF **MM/C FEES**

How do we structure our fees?

01

Charge accordingly + value yourself

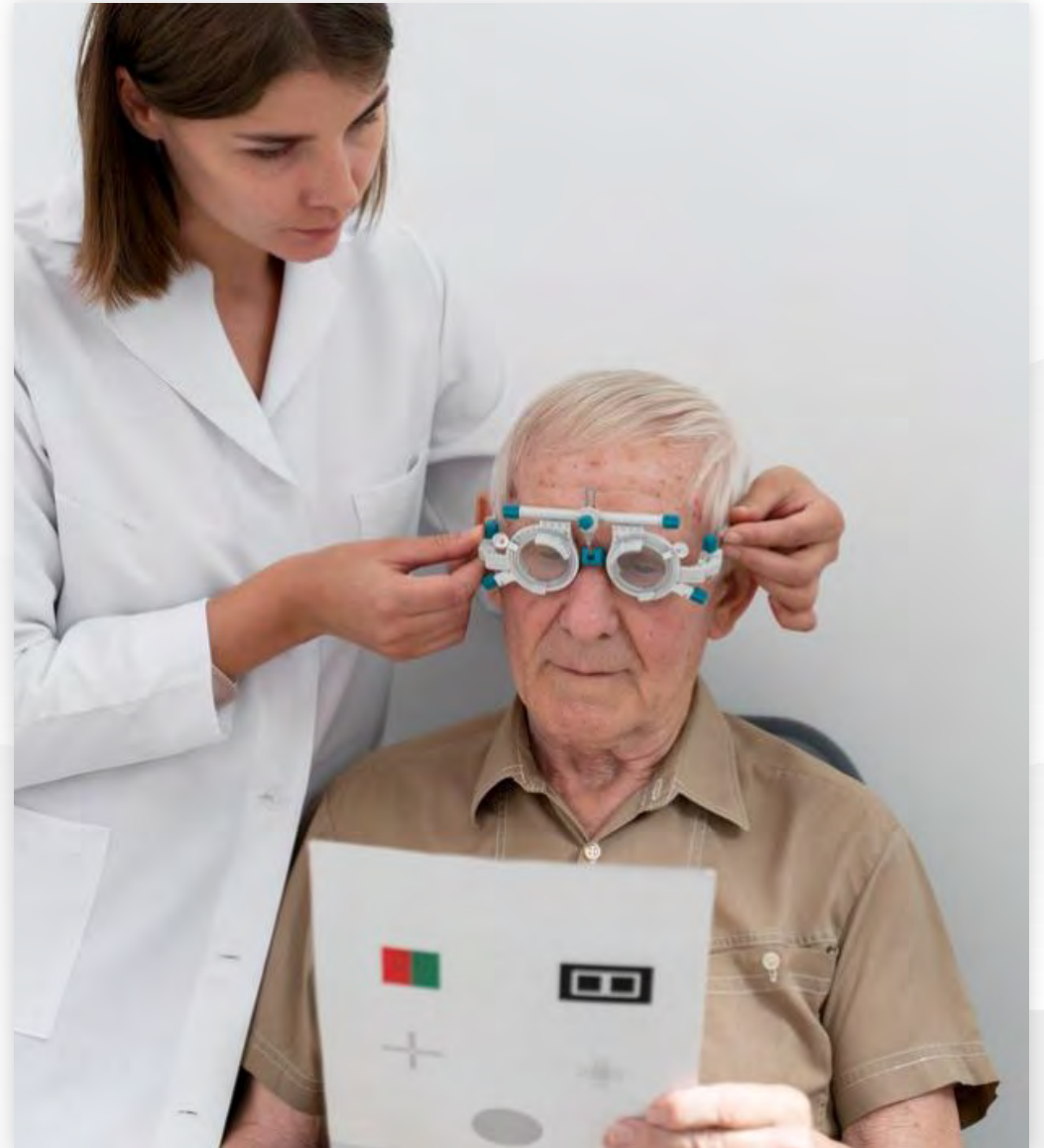
02

As price delta increases, justification difficulty does too

03

Factor in your total costs

We will talk about this in Part III



THE WILD WEST OF **MM/C FEES**

How do we structure our fees?

There's a whole industry out there for this...



ODs on Education

Contact Lens & Myopia Summit

Practice Growth

4 HOURS FREE COPE-ACCREDITED CE

Tap into the growing demand for myopia management and specialty contact lenses. Learn the basics first and then how to seamlessly integrate these services, attract and educate patients, and build a high-impact, recurring revenue stream that strengthens both clinical care and practice profitability.

 Ryan Corte, OD SPEAKER	 Zac Holland, OD SPEAKER	 Sheila Morrison, OD SPEAKER	 Ashley Wallace-Tucker, OD SPEAKER
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SUNDAY, JULY 19 8AM PST/11AM EST

VIRTUAL | REGISTER VIA ZOOM (FREE): www.ODsonFinance.com/events

Part III

MM/C FROM THE PRACTICE LEVEL



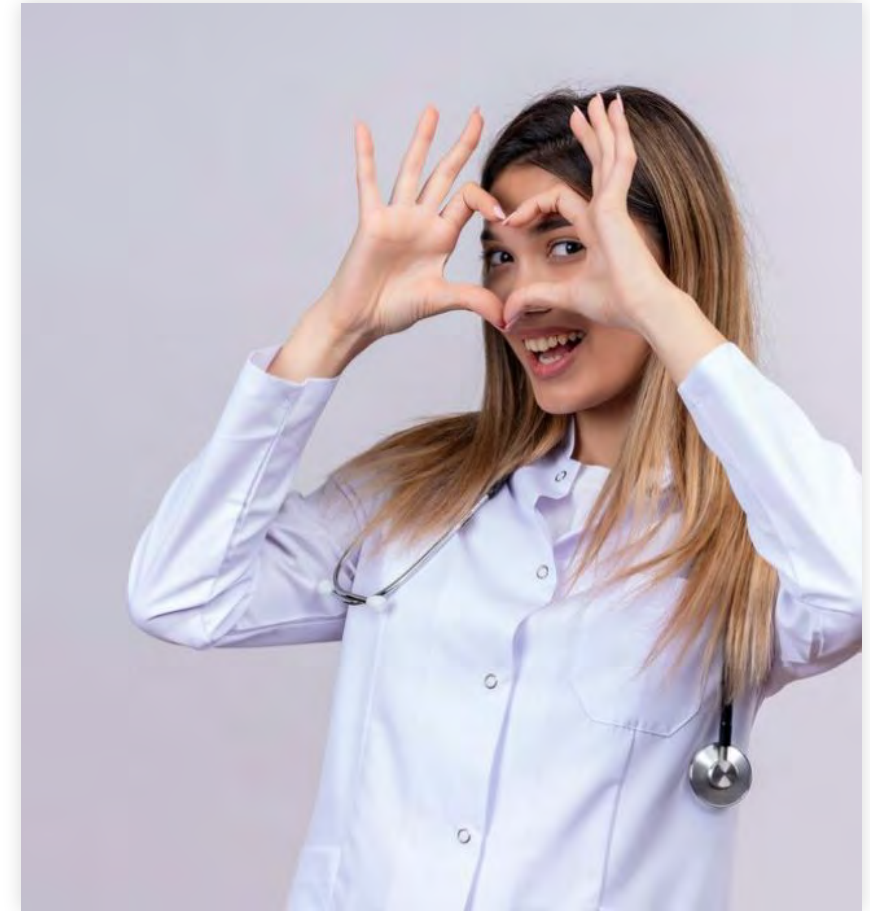
Best Practices

**Mapping Your MM/C
practice**

**Establishing
Longevity**

BEST PRACTICES FOR TRUE MM/C PRACTITIONERS

- **DO** - Be vigilant in identifying candidates
- **DO** - Relay the WHY
- **DO** - Explain methodology
- **DO** - Explain pros + cons
- **DON'T** - use fear mongering
- **DON'T** - be dismissive
- **DON'T** - spam the patient



BEST PRACTICES FOR TRUE MM/C PRACTITIONERS

What is your IDENTITY?

Myopia Management/Control



BEST PRACTICES FOR TRUE MM/C PRACTITIONERS

What is your IDENTITY?

If you have the tools that have been clinically proven to significantly slow down myopia in a child, shouldn't you be offering this as **FIRST LINE TREATMENT?**



BEST PRACTICES FOR TRUE MM/C PRACTITIONERS



BEST PRACTICES FOR TRUE MM/C PRACTITIONERS



MAPPING YOUR MM/C PRACTICE

01

Initial investment/capital expenditures

02

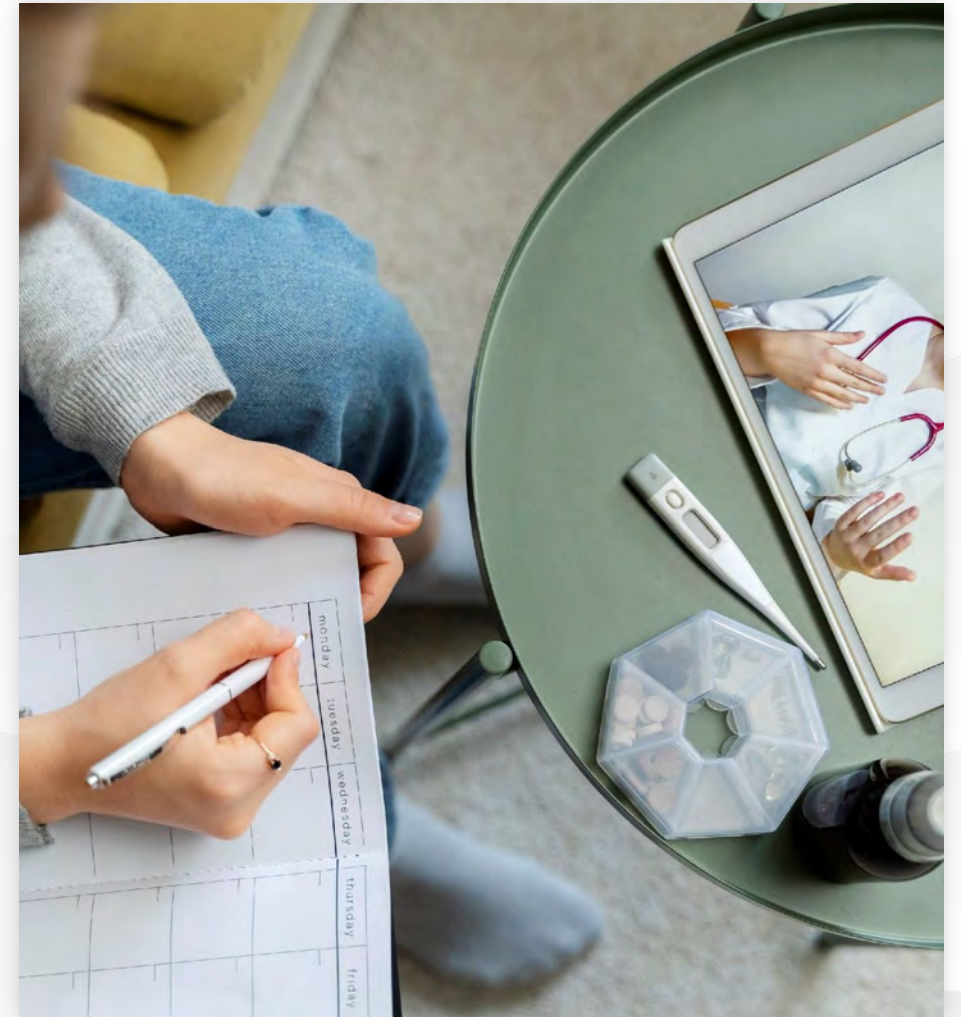
Ongoing Operational Costs

03

Ongoing Marketing Costs

04

Materials Costs



POLL

Do you need axial length measurement in order to be a true MM/C practitioner?

01

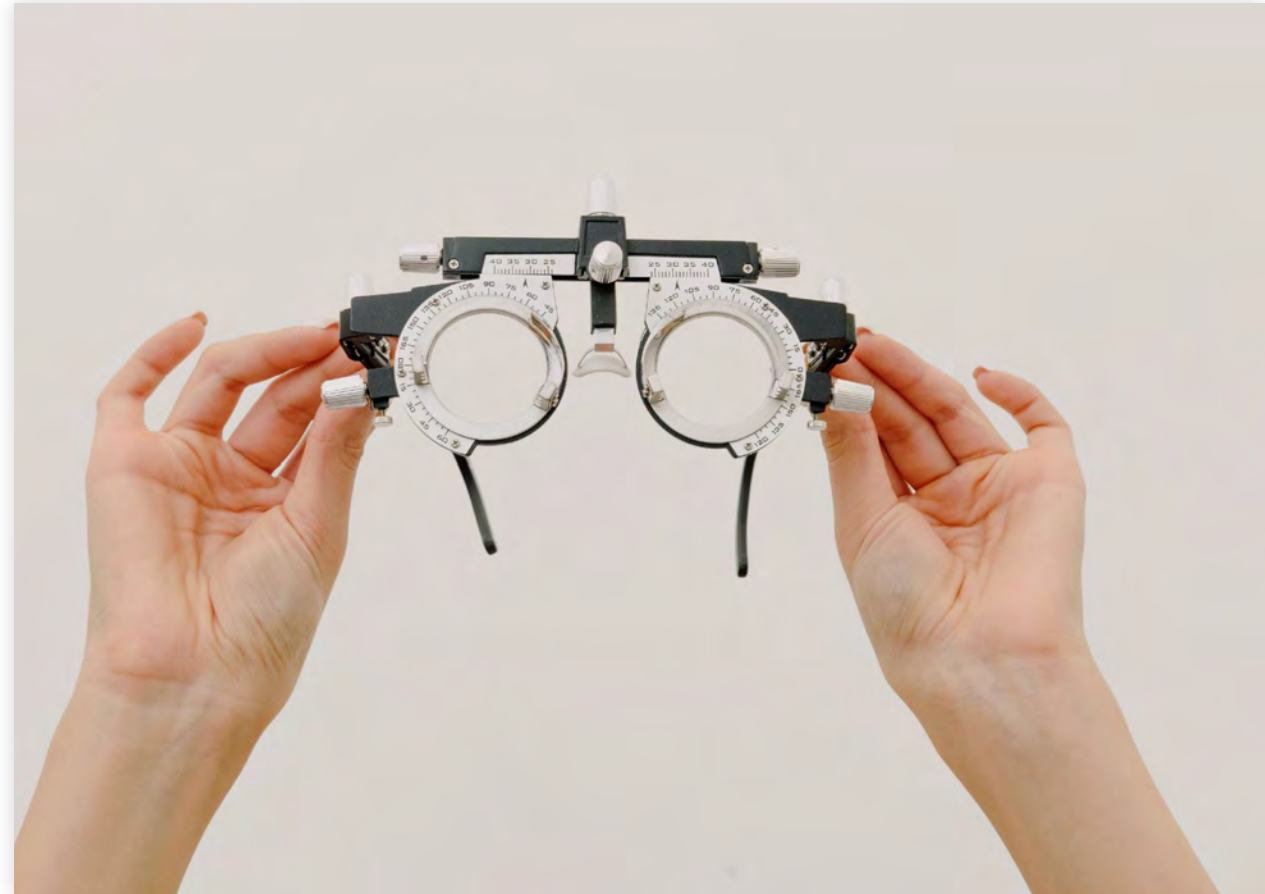
Yes

02

No

03

What's axial length, also why am I here?



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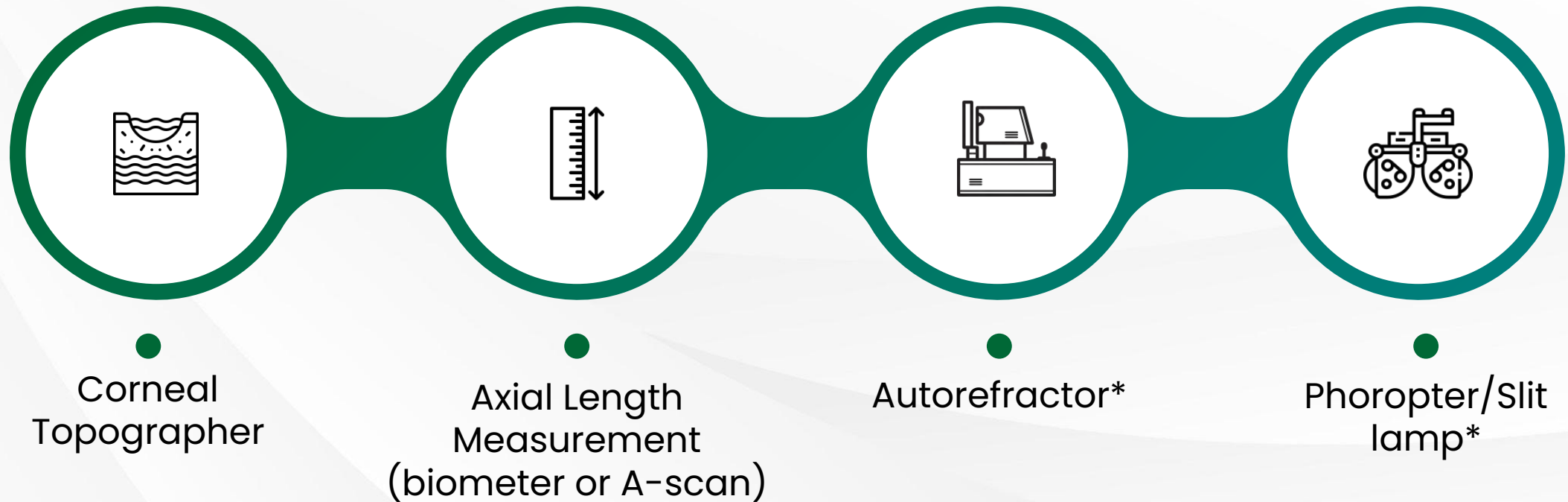


Do you need axial length measurement in order to be a true MM/C practitioner?

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MAPPING YOUR MM/C PRACTICE

Expenses - Initial Investment - Equipment NEEDS



***Standard office should already have these**

MAPPING YOUR MM/C PRACTICE

Expenses - Initial Investment - Equipment NEEDS



Zeiss ATLAS 995

\$5,488.00



Reconditioned DGH A-Scan

\$3,500.00

Start Lean?

MAPPING YOUR MM/C PRACTICE

Expenses – Initial Investment – Equipment NEEDS



MYOPIA AND DRY EYE

OCULUS Myopia Master

~~\$49,999.00~~ **\$12,999.00** **-35% OFF**

Oculus Myopia Master is the first all-in-one instrument that does everything in 1 device. The built-in autorefractor obtains the optical

IN STOCK

- 1 + **ADD TO CART** ADD TO WISHLIST

SKU: OCULUS Myopia Master
Category: Myopia and Dry Eye
Tag: OCULUS Myopia Master

SHARE [Twitter](#) [Facebook](#) [LinkedIn](#) [Pinterest](#) [Email](#) [Share](#)



HOME / CORNEAL TOPOGRAPHY

OCULUS Pentacam HR

SALE! ~~\$49,999.00~~ **\$39,999.00**

OCULUS Pentacam HR offers you excellent image quality. The resolution of its images is five times that of the Pentacam Basic or even Classic models, allowing the Pentacam HR to deliver efficient representations of IOLs and IOLs.

Start Luxuriously?

MAPPING YOUR MM/C PRACTICE

01

Initial investment/capital expenditures

02

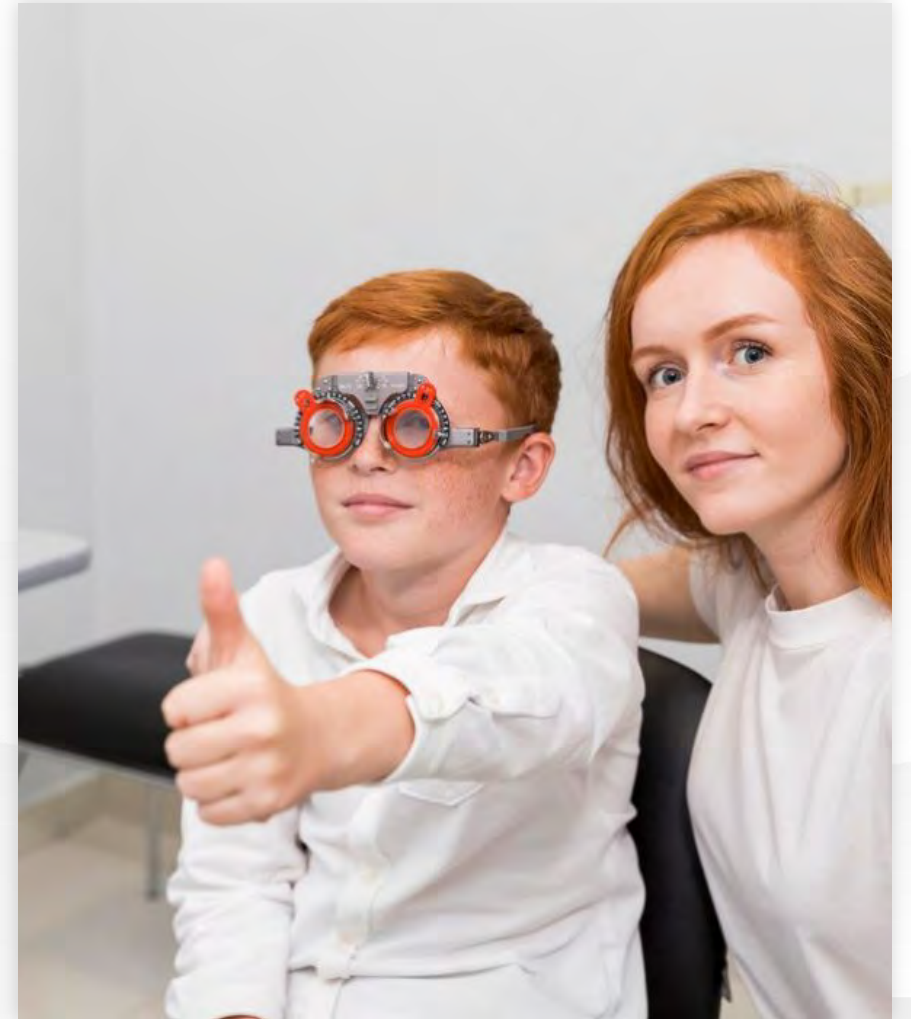
Ongoing Operational Costs

03

Ongoing Marketing Costs

04

Materials Costs



MAPPING YOUR MM/C PRACTICE

Ongoing Marketing Costs



Staff -
technicians +
trainers



Dedicated MM/C
Counselor?



Associate doctors
Incentivized?

MAPPING YOUR MM/C PRACTICE

01

Initial investment/capital expenditures

02

Ongoing Operational Costs

03

Ongoing Marketing Costs

04

Materials Costs



MAPPING YOUR MM/C PRACTICE

Ongoing Marketing Costs



01

Digital Ads - \$

02

Print Literature + Ads - \$\$

03

In-Office conversion - TIME

What is your time value?

MAPPING YOUR MM/C PRACTICE

01

Initial investment/capital expenditures

02

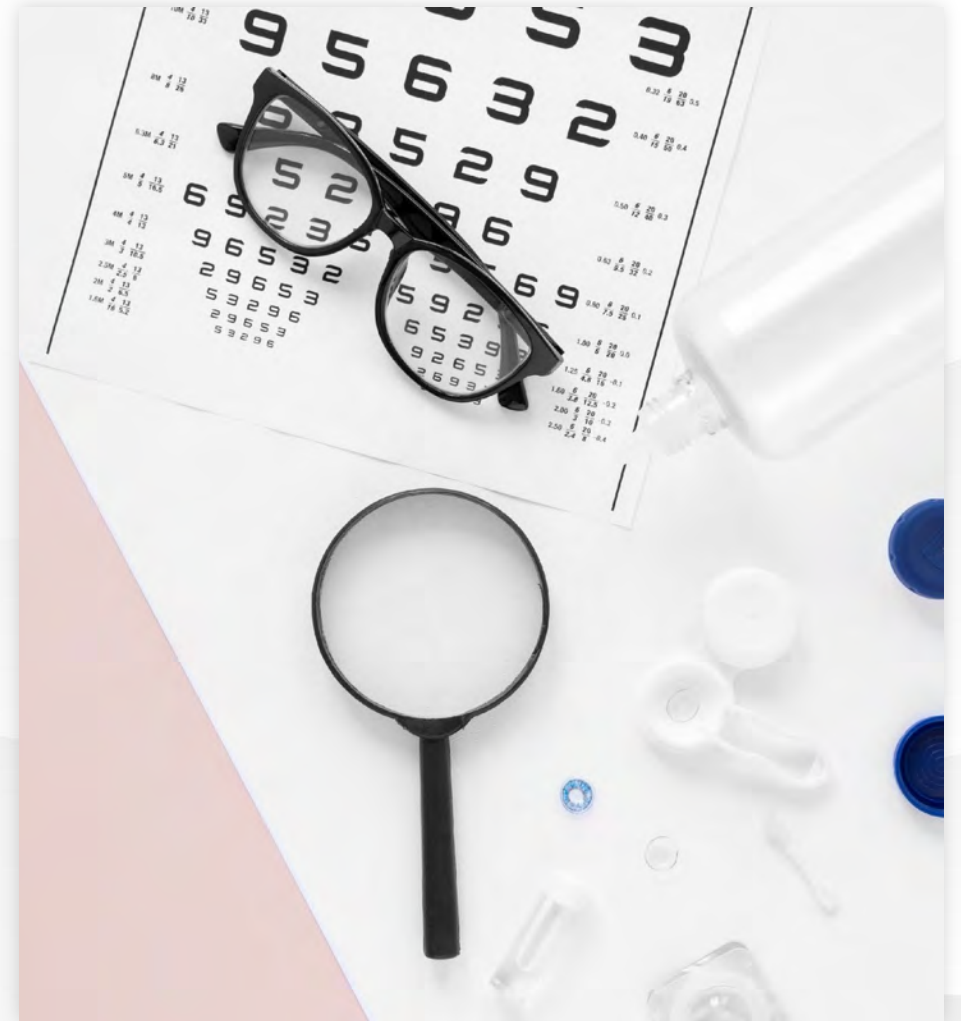
Ongoing Operational Costs

03

Ongoing Marketing Costs

04

Materials Costs



MAPPING YOUR MM/C PRACTICE

Material Costs



Ortho-k lenses



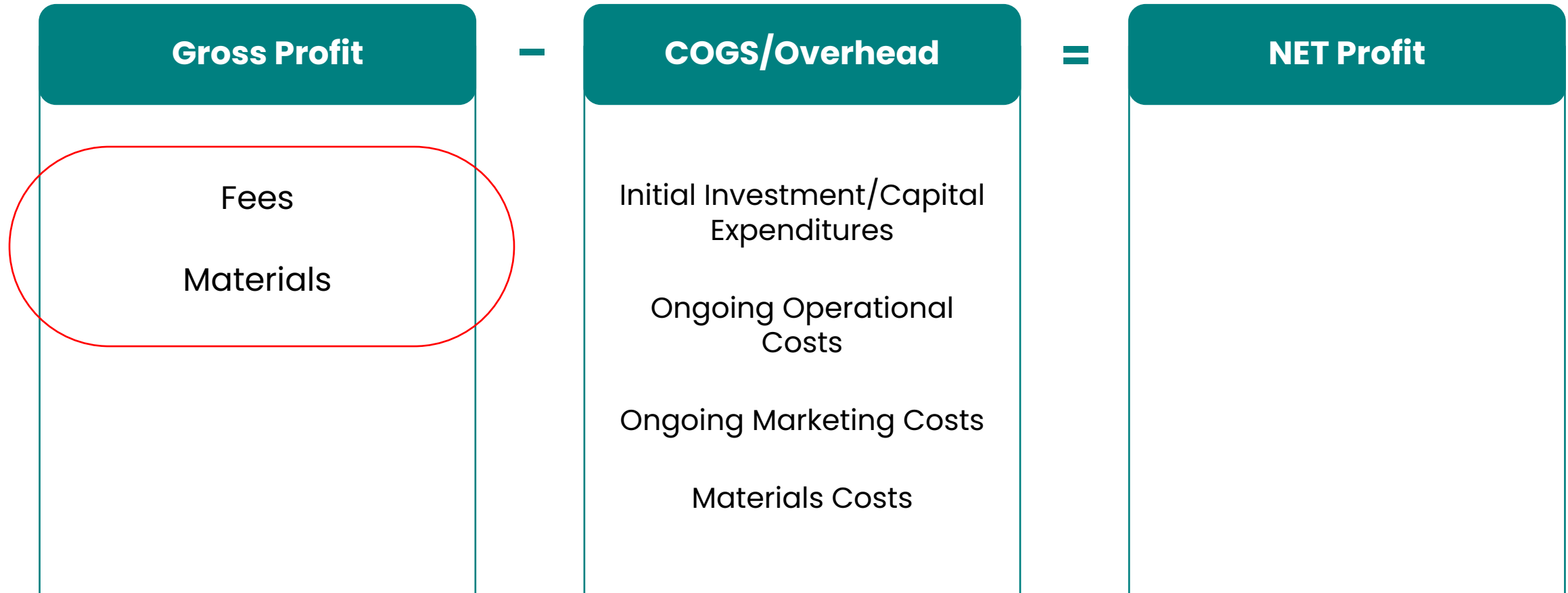
Soft lenses



Solutions, removal tools, etc.



BEST PRACTICES FOR TRUE MM/C PRACTITIONERS



MAPPING YOUR MM/C PRACTICE

FEES

01

Global or Individual Treatment Fee

02

Consultation

03

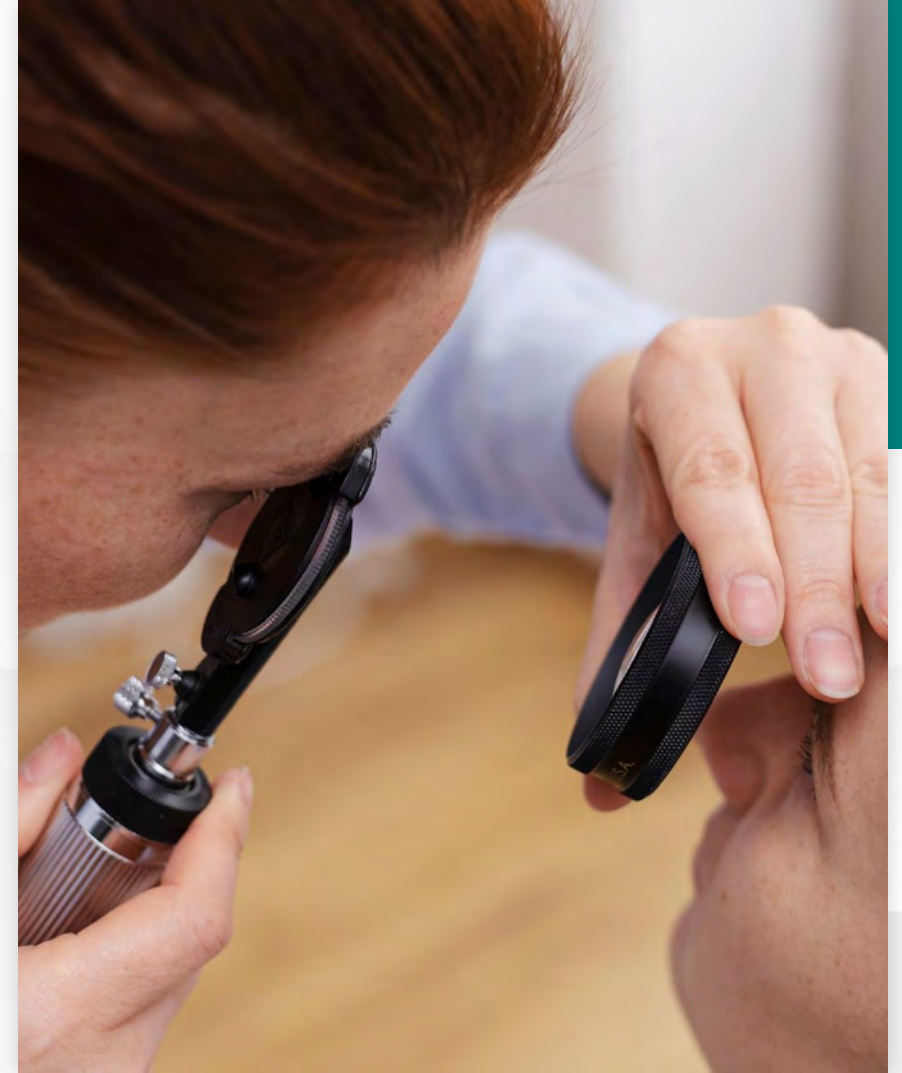
Presentation of Fees?

- Doctor or staff?
- Exam room or elsewhere?

04

All upfront... or payment plans

- **Cherry Financial**, CareCredit, Sunbit, your own (good luck!)



MAPPING YOUR MM/C PRACTICE

The Case for Having Payment Plans

According to the Statista Consumer Insights, **U.S. Millennials** stand out as the "buy now, pay later" generation, with 56 percent of those born between 1980 and 1994 saying they used online schemes that allow for the interest-free payment of goods and services in several installments. Mar 23, 2023



If you have a child born 2010 or later, you're parenting a Generation Alpha.

The jobs they'll have some day? Many don't currently exist. They will have more formal education than any generation before them.

The majority of their parents? Millennials.



MAPPING YOUR MM/C PRACTICE

FEES

Yea, this is all great, but what the heck do I charge?



“One of the most valuable metrics in practice management is revenue per chair time hour”

Dr. Chris Wolfe

MAPPING YOUR MM/C PRACTICE

FEES

01

Calculate your standard rev/CTH,
then calculate your MM/C rev/CTH

→ MM/C rev/CTH should be
SUBSTANTIALLY higher

02

Remember this is an OD-specific specialty

LAOG Example

\$841 per “regular” CTH; \$1200 per MM/C CTH

About 1.5x rev/CTH



MAPPING YOUR MM/C PRACTICE

FEES

How do we structure to capture the most patients at the highest return?

(ethical
duty)

(fiscal duty)



**Urban Myopia
Prevalence**

41.0%



**Rural Myopia
Prevalence**

15.7%

MAPPING YOUR MM/C PRACTICE

FEES

How do we structure to capture the most patients at the highest return?

Presentation is key



Urban Myopia Prevalence

41.0%

Higher priced for higher revenue,
but more competition?



Rural Myopia Prevalence

15.7%

Lower priced for accessibility, more
likely to capture market share?

PLANNING FOR LONGEVITY

Will the Wishing Well run dry?

CooperVision®

Why Are Specialty Skills Important?

Myopia Management + Specialty CLs are *Optometry Untouchables*



PLANNING FOR LONGEVITY

What will spectacle myopia management do to the landscape?

HOYA MIYOSMART

MYOPIA MANAGEMENT

EASY AND EFFECTIVE NON-INVASIVE METHOD OF MYOPIA MANAGEMENT FOR YOUR CHILD

60%
SLOW DOWN

EFFECTIVE

SAFE

EASY

SHIELD

MIYOSMART COATING

DUAL TECHNOLOGY

A child wearing glasses is featured in the advertisement.

#1 IN SPECTACLE LENSES WORLDWIDE*

Essilor® Stellest™ lenses
slow down myopia progression
by 67% on average**

A child wearing glasses is featured in the advertisement.

Powered by

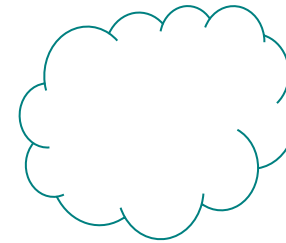
Diffusion
optics
Technology™

SG
SIGHTGLASS
VISION

PLANNING FOR LONGEVITY

Planning for Longevity

What will spectacle myopia management do to the landscape?



PLANNING FOR LONGEVITY

Spectacles are a double edged sword



Readily available, wider adaptability but...



Easily disrupted, commoditized

- Don't have the medical specialty brand that contact lenses + drops have



POLL

Will spectacle lens options be bad for MM/C's profitable + niche specialty value proposition?

01

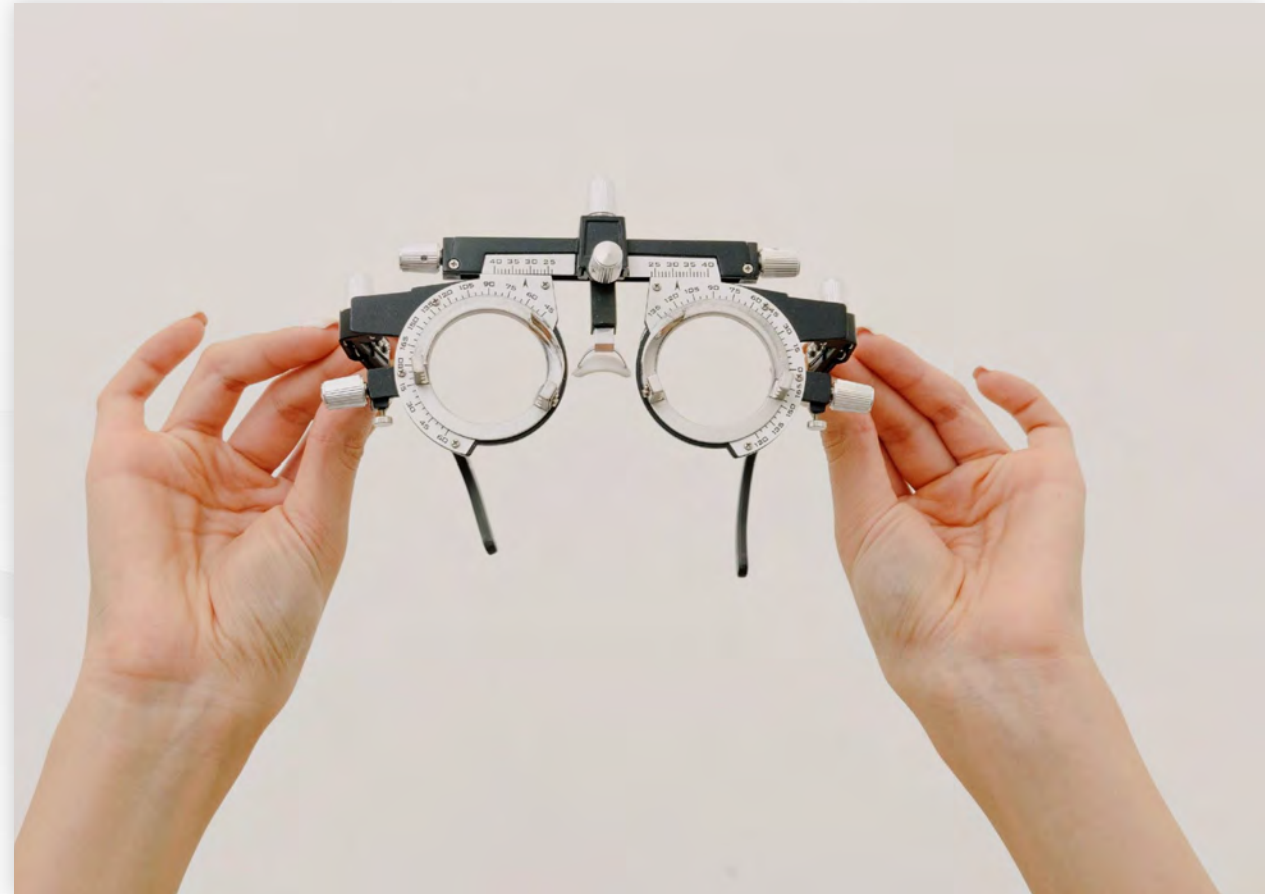
Yes

02

No

03

I still don't know why I ended up here



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Will spectacle lens options be bad for MM/C's profitable + niche specialty value proposition?

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PLANNING **FOR LONGEVITY**

01

Commoditization will
happen

02

The Law of Diminishing
returns will happen

**Remember that companies try to sell materials,
NOT keep you in business**

PLANNING FOR LONGEVITY

01

Now is the
time to join
the gold rush

02

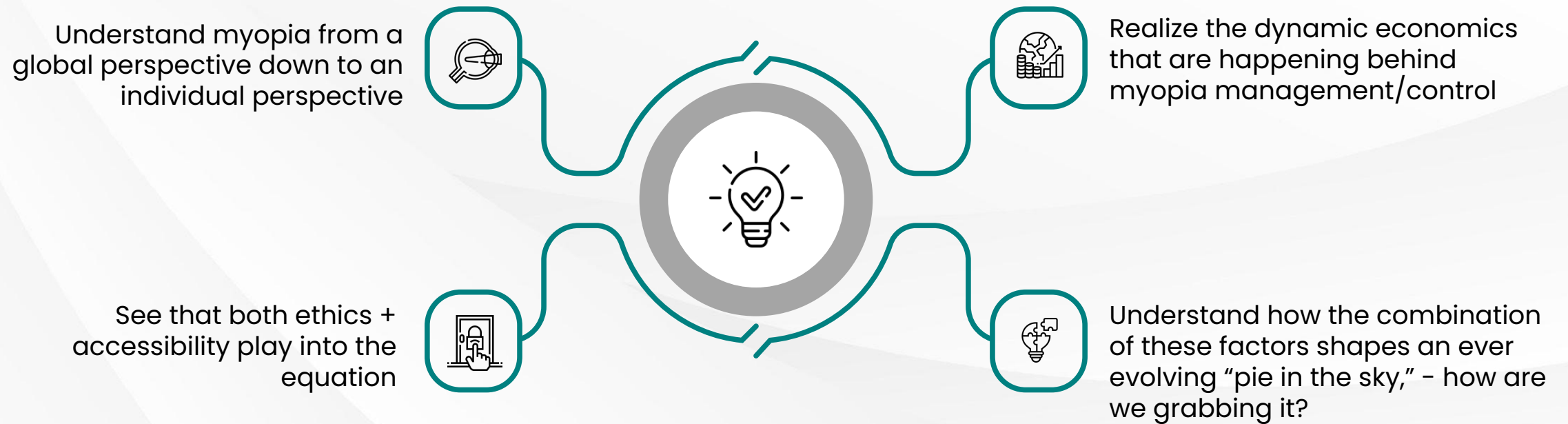
No shortage
of patients

03

This is still our
Blue Ocean

**It is our responsibility to stop the myopia epidemic
You are a specialist – command the respect that
you deserve**

CONCLUSION



Special **THANKS**

to
Dr. Justin Kwan

THANK YOU!

Aaron Neufeld, OD



aaron@odsonfinance.com