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2020 Rising Visionary Recipient

An Eye To The Future: The Future Outlook of Vision and Eye Health in the U.S.

A Proposed Impactful Change

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My Story (Abridged)

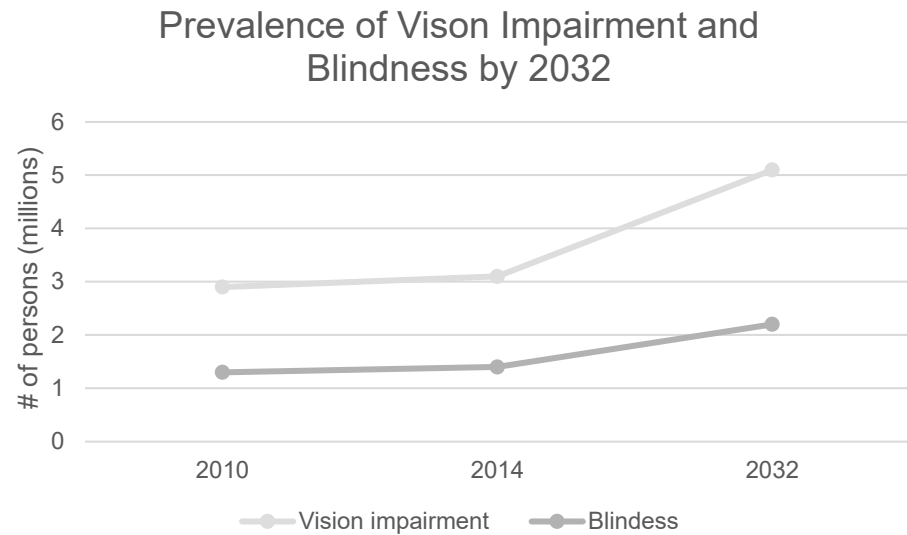
- Largely due to interest and altruism
 - ~8 years old, a malingerer, successfully got glasses and hated it
 - Limited effort against contracting “Apollo” during the rainy season
 - “Apollo” = Seasonal Acute hemorrhagic conjunctivitis
 - 1st epidemic coincided with the Apollo 11 moon landing
- University of Illinois at Chicago (UIC)
 - Chicago light house
 - Public health education
 - Factors that contribute to poor adherence to glaucoma therapy
 - The disproportional distribution of ocular diseases in populations
 - Resistance and barriers to good health care practices
 - Matters of health disparity, health equity etc.



Introduction

- The scale of vision problems based on 2010 US census data

	2010	2014	2032
	# (Rate)		
Total population >40years	142,648,393		
Vision Impairment (20/40 or worse)	2.9M (2%)	3.1M	5.1M
Blindness (20/200 or worse)	1.3M (0.9%)	1.4M	2.2M



Future_of_Vision_final_0.pdf. (n.d.)
<http://www.visionproblemsus.org/blindness/blindness-map.html>
<http://www.visionproblemsus.org/vision-impairment/vision-impairment-map>



Introduction

- Economic burden estimates
 - 2032 → \$247 billion
 - 2050 → \$376 billion
- Impact on disability and wellbeing losses
 - 283,000 disability adjusted life years (DALYs) / year
 - Monetized value: \$14 billion
 - Further increases the economic burden



The Future Outlook

- Increased prevalence of vision impairment and blindness by 2032
 - Visual impairment will increase by 65%
 - Blindness will increase by 59%
- Increased prevalence, cost and disparities in four major eye diseases
 - Age related macular degeneration (AMD)
 - Diabetes
 - Glaucoma
 - Cataract
- Total number of cases for these 4 major eye diseases will increase by 50% by 2032



Reasons for the Projected Outlook

- An aging population
 - Continued advancement in medicine
 - Increased life expectancy and longevity
 - Increased chronic systemic diseases with ocular manifestations
 - Role of primary care providers (Studies show this is an area of improvement)
- Underutilization of vision and eye care services
 - Significant percentage of US adults did not seek eye care despite having visual impairment (Lee et al., 2009)
 - Very low utilization rates for persons without reported vision impairment (Lee et al., 2009)



Underutilization of Vision and Eye Care Services

- Reasons:
 - Largely attributed to the cost or lack of insurance coverage
 - Insurance coverage but still did not go to eye doctor (Lee et al., 2009)
 - Lack of access
 - “ Do not have/know an eye doctor”
 - “ Too far/no transportation”
 - “ Could not get an appointment”
 - Fear & mistrust in healthcare
 - Myths
 - Perceptions



Underutilization of Vision and Eye Care Services

- Reasons:
 - Unnecessary
 - “No reason to go” (Bailey et al., 2006; Lee et al., 2009; CDC, 2011)
 - "have not thought of it" or "no problem" (CDC, 2011)
 - >33% hadn't gotten around to it (Focus on Aging Eyes, 2018)
 - ~25% said it's easier to buy over the counter reading glasses (Focus on Aging Eyes, 2018)
 - 40% said not having problems seeing (Focus on Aging Eyes, 2018)



Underutilization of Vision and Eye Care Services

- Reasons:
 - Unawareness/ limited knowledge
 - Detection of other chronic diseases
 - 61% worry about impact of diabetes & only 4% know of the role of vision care in diabetes management (VSP, 2018)
 - Gaps in understanding connection between vision, wellness and holistic health (Versant health, 2020)
 - A child should get 1st eye exam by 6 months old or that a child may need glasses
 - Screening \neq eye exams , Vision \neq Eye Health, Blindness \neq Total darkness
 - Many eye diseases are non-symptomatic until significant vision loss
 - e.g. Glaucoma = sneak thief of sight



“Unnecessary” Mindset

- Reasons:
 - Viewed a normal aging problem
 - Rendering it unnecessary for the young
 - Less concerning for the elderly
 - Not life-threatening
 - Resource allocation
- Insurance is contributory but the lack of public awareness is prime and an area of improvement



Public Health Implications

- Improve:
 - Education/ public awareness
 - Early detection of eye diseases
 - Healthcare seeking behaviors
 - Preventive eye care



Entertainment Education in Vision and Eye Health

- Entertainment – Education (E-E)
 - Used to reach the public with health messages about a social issue
 - Entertainment : emotions, empathy, example, self efficacy and enhance lives
 - Educational content : correct, complete, consistent, compelling, clear, concise and culturally appropriate
 - Unexplored in vision and eye health
- Create/Enact skits
 - Infomercials / Brief health promotion videos
 - Intended to inform, educate and empower the public
 - Public Service Announcements / Public information films
- Shared patient experiences via videos and/or audios
 - Blindness, vision impairment, low vision



Entertainment Education in Vision and Eye Health

- Skits with lessons that elicit response from audience
 - Change in health seeking behavior
- Appeal to diverse learners and different backgrounds
- Several formats to reach various at-risk populations
 - e.g. AMD among Caucasians
 - e.g. Glaucoma among people of African decent
- Methods of dissemination
 - Younger generation; Millennials, Generation Z etc.
 - Comedy, Tik Tok, memes
 - Older generation
 - Facebook, Commercial on TV
 - On-hold message for callers
 - Display on screens in waiting rooms



Evidence Of Successful Implementation

- Feasible and cost-effective way to provide health education and improve health literacy
- Effective in breast cancer self examination, prostate cancer screening, sunscreen adherence, HIV testing and therapy adherence (Tuong et al., 2014)
- Oral health
 - Videos in waiting rooms were found to be effective in educating patients and instigating both immediate and sustained self reported behavior change (McNab & Skapetis, 2019)
- E-E dramas can persuade and improve health seeking behaviors (J. H School of Public Health)
 - Especially when audience can relate with characters and settings
- E-E can influence behavior that is deeply rooted in traditions that are hard to change (J. H School of Public Health)



Conclusion

- Impact of vision impairment and blindness will increase without intervention
- Use of Entertainment - Education might help increase public awareness and mitigate the overall toll of vision impairment and blindness in the near future



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 **Prevent
Blindness**