

Good morning and Thank You!





Impact Analysis of Vision to Learn

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Vision to Learn home team (Austin Beutner, Cynthia Watts, Sharon Neal and Zach Goren)



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Background

- Over 20% of students have a vision problem that can be identified by screening and over 80-90% of those defects can be corrected with glasses.
- Low income and minority students are disproportionately affected by untreated visual impairments.

www.cdc.gov/visionhealth/pdf/surveillance_background.pdf; Ethan D, et al. J Sch Health. 2010;80:368–370; Basch CE. Journal of School Health



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Vision is Important for Learning

- Among students entering California's public schools, 95% of 1st graders who need glasses do not have them.
- Students with vision problems tend to have lower academic performance, as measured by test scores and grades.

Kodjebacheva, G., Brown R., Estrada L., Yu F., & Coleman A.L. (2011). Uncorrected refractive error among first-graders of different racial/ethnic groups in Southern California. *Journal of Public Health management & Practice*, 17(6):499-505; Krumholtz I. *Optometry*. 2000;71(7):426-430; 11. Vaughn W, Maples WC, Hoenes R. *Optometry*. 2006 Mar;77(3):116-23. Goldstand S, Koslowe KC, Parush S. *The American Journal of Occupational Therapy*. July 1, 2005 2005;59(4):377-389



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Why You Should do Well in School

- How students perform in school impacts their overall life trajectory:
 - Employment, earnings
 - Health behaviors, outcomes, life expectancy
 - Impacts on the next generation
- Interventions to support school function can have a profound effect on a child's life.



Health Impact Pyramid

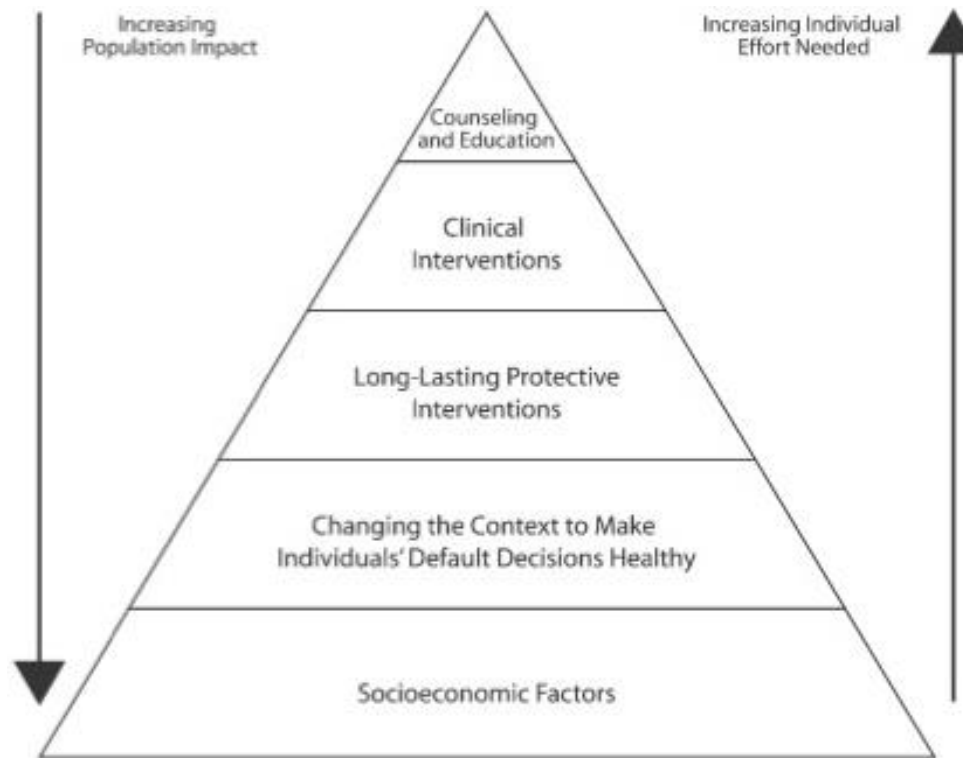


FIGURE 1—The health impact pyramid.

From: Frieden, TR. Am J Public Health. 2010;100:590–595



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Vision to Learn Evaluation

- By providing visually impaired students with a free exam and corrective lenses, we hypothesized that VTL can improve
 - Student focus and behavior in the classroom
 - Student ease and ability to complete homework
 - Student academic performance



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Vision to Learn Evaluation

- Other hypothesized benefits:
 - Classroom management
 - Family finances
 - Student self-esteem
 - Sports performance
- There is limited published data describing the impact of corrective lenses on children's academic performance.



Aim of the Impact Analysis

- To understand how receiving glasses through VTL impacts students, families and teachers.
 - Qualitative evaluation study
 - Three schools were chosen because of willingness to participate
 - Focus groups were held in each school with each group:
 - Parents, Students, Teachers



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Goals of Impact Analysis

- To describe VTLs impact.
- To give program feedback.
- To inform future quantitative evaluation.



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Methods

- Participants were identified by school personnel as having been served by VTL.
- Adult participants (groups of teachers and parents) completed a brief questionnaire and then attended a 60-90 minute group discussion.
- Student group discussions were 30 minutes.



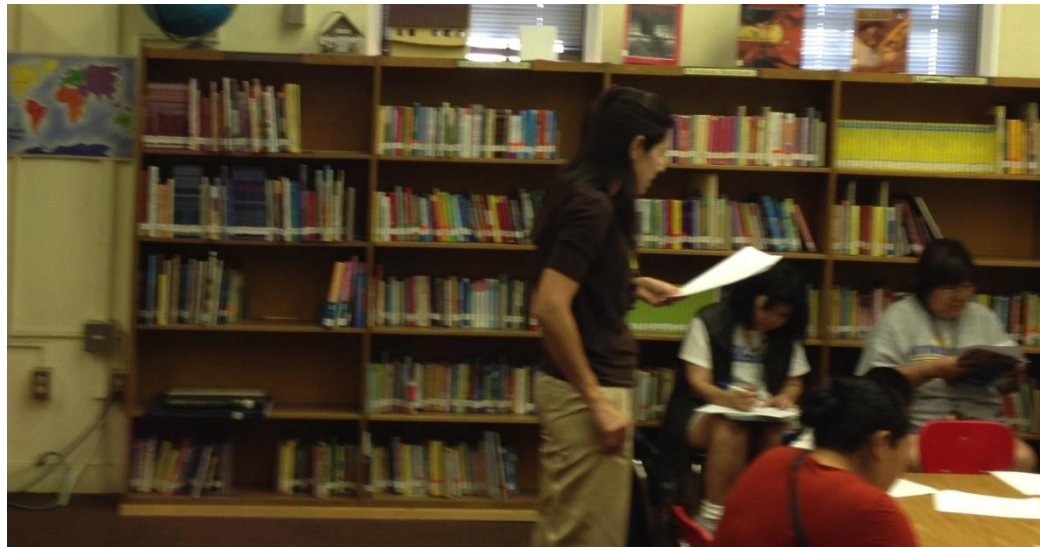
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Methods

- Parent groups were conducted in Spanish.
- Discussions were digitally recorded and transcribed.



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Methods

- Spanish transcripts were translated into English.
- Transcripts were analyzed by 3 independent. investigators using a grounded theory approach to identify themes.



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Who Participated?

- 25 Teachers
 - Average years of experience=16.5 (range 2-35 years)
 - All grades from K-8 represented
 - Majority had more than one student served by VTL
- 20 Mothers
 - All Latina, ages 25-44
 - Majority had a high school education or less
- 21 Students
 - Average age 8.5 (range 5-14)



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Impact of Uncorrected Poor Vision

- School Performance
 - Poor focus
 - Giving up
 - Poor class participation



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Teacher

“... they’re squinting from behind. Some of the students don’t want to get up because they are (self)-conscious. You see they’re like looking and are trying to copy from their neighbor because they can’t see. So that puts them behind. And they feel they are behind all the time because of the inability to see clearly.”



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Teacher

“What I’ve noticed is the same, like the squinting... and it becomes such an inconvenience for them that they just sit there and just give up on it.”



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Student

“But when I didn’t have glasses, I had bad grades and my mom and dad weren’t happy.”



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Impact of Uncorrected Poor Vision

- School Performance
 - Poor focus
 - Giving up
 - Poor class participation
- Classroom disruptions/management
 - Students getting out of seats
 - Copying/getting help from others



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Teacher

“... But it also becomes a classroom management issue because... we have students who do need to be up closer, and not just closer to go see something and come back, but to be able to work in a space that’s more accessible to them. That’s re-creating our whole classroom sometimes.”



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Impact of Uncorrected Poor Vision

- Stressful for students, families and teachers
 - Physical strain (headaches, eye pain)
 - Student: “Because my eye...it was too busy. It was fighting. Close this eye. No, open it. Close it.”
 - Financial strain
 - Accommodating for poor vision



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Parent

“Yes like anxiety to go to school, knowing that he would be there just to strain himself in trying to learn. I would always tell him he needed to bring home good grades. But at the same time, I wasn’t being supportive enough. Why didn’t he sleep? Why was he scared? I didn’t know that it was because of [his vision].”



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Parent

“...my husband has a reading disability....And I was ready for them to give her (my daughter) tests to see if she also had to be in special ed. ...And I said, “Wait. She’s going to get her glasses. Wait.” And today..., he can see that she is reading, that she is studying and that she can now see well....So it’s not just the change in my daughter but also in my husband ...And now...she has changed a lot in school because she can see well.”



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Teacher

“I think most of the kids who don’t have them (glasses), they themselves know it’s because it’s a financial burden. They are very well aware that that’s the reason why they don’t have the glasses.”



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Impact of Correcting Vision

- More confidence/classroom participation
- Improved Focus/classroom behavior
- Improved academic performance
- More ease with homework



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Impact of Correcting Vision

Teacher: "...a couple of the really shy kids started participating more. And so looking back I realize that, they felt insecure, they weren't sure about what the words were and so they...felt insecure....And they started participating and they started coming out of their shell."



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Impact of Correcting Vision

Teacher: “I’ve had about six kids that received glasses and these are the kids that I couldn’t understand why... when they had to work independently they were distracting other kids, socializing and you know I just couldn’t get it.... But when they got the glasses, that kind of just changed. It went away. It really did.”



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Impact of Correcting Vision

Parent: “And the teacher told me that now I don’t have to try to keep Monica’s focus, ‘Do you understand? Do you understand?’ Now she sees and tries and I don’t have to be after her like before that she had to look hard to try to see what it was.”



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Impact of Correcting Vision

Teacher: “Yeah they persevered at the task rather than giving up. I think the frustration level was so high when they couldn’t really see very clearly. And they strained...They didn’t have the stamina to continue at that level of concentration. But when they got their glasses that kind of disappeared and they were really able to stick to their work a little better.”



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Impact of Correcting Vision

Teacher: “[The] fluency rate has increase for those students. They can see the words so they are more apt to practice reading because it’s not such a task for them. So they do more practicing and so their fluency rate has gone up even though it’s been just recently like three months ago that they’ve gotten their glasses. I can see a difference.”



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Impact of Correcting Vision

Teacher: “I found that there is more accuracy in their math especially when they were checking....I noticed with one or two of the students that got their glasses, the accuracy rate went up. Probably because they could see the numbers better in the books.



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Strengths of VTL Model

- Serving children in school
 - Eliminates cost and logistical barriers for parents
 - Decreases stigma by providing glasses to multiple students at a time
 - Schools can encourage use



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Perceived Barriers to Providing Glasses

Barrier	Number	Percent
Cost	16	80%
Lack of health insurance	12	60%
Identifying vision problem	8	40%
Knowing where to get glasses	6	30%
Worry glasses will be damaged/lost	6	30%
Worry glasses will not be used	4	20%
Time away from work/family	3	15%
Child does not want glasses	3	15%
Not important	1	5%



Strengths of VTL Model

Parent: "...my daughter- the one who's 14, she needs glasses and she's big already. When she came to this school, she did not want to wear them. But when I gave her the application, I told her that everyone in her class was going to get the glasses. And yes, now she uses them. Every day she uses them.... It's like she said, oh my friend also has the same pair like me. So that encourages them."



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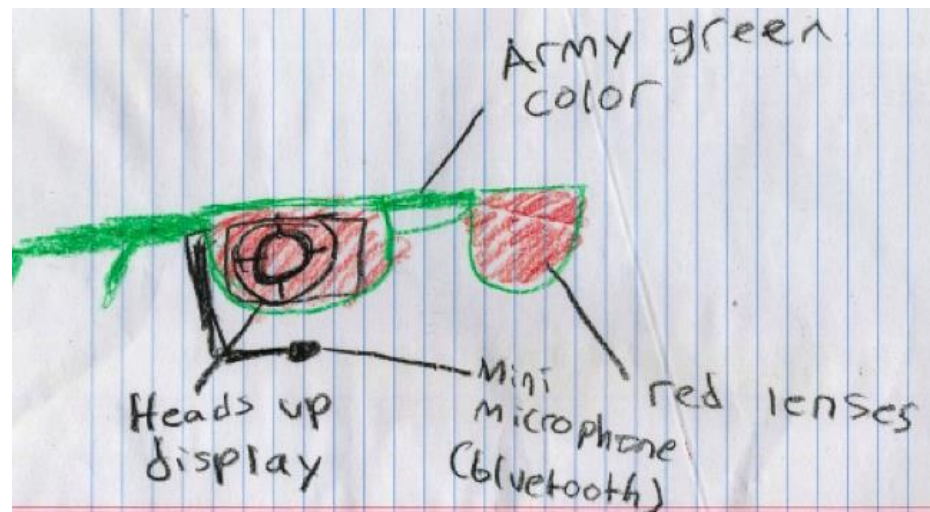
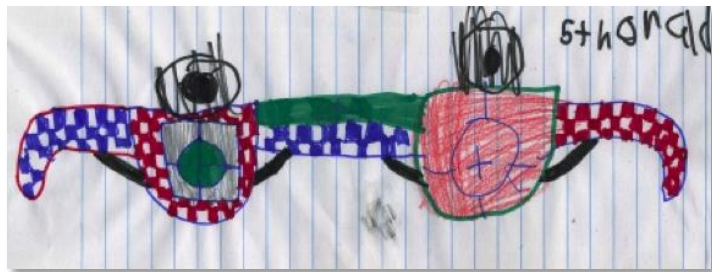
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Strengths of VTL Model

- Kids pick their own frames (or even design their own)



- Staff make students feel special



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Strengths of VTL Model

Teacher: “They are always wearing their glasses, they are proud to wear them. It’s like a fashion statement and they chose those big black rims it’s like they love them.”



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Other Findings

- Most children do not use their glasses when playing outside
- 92% of teachers and 90% of parents felt most of the children at their schools would not have access to glasses without VTL
- Parents and teachers all highly valued VTL services



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Limitations

- Focus group methodology facilitates in-depth discussion of individual perspectives within the context of a larger group but may over-represent specific participant contributions.
- Aggregate group data may not reflect equally the specific concerns of every group participant.
- Convenience sampling and selection bias limit the ability to generalize our results to all parents, teachers and children.



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Conclusion: Impact of uncorrected vision

- Poor school performance
- Classroom disruptions/management
- Stressful for students, families and teachers



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Conclusion: Impact of corrected vision

- More confidence/classroom participation
- Improved focus
- Improved academic performance
- More ease with homework



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Strengths of the VTL model

- Serving children in school
 - Eliminates cost and logistical barriers for parents
 - Decreases stigma by providing glasses to multiple students
 - Schools can encourage use
- Kids pick their own frames
- Staff make students feel special



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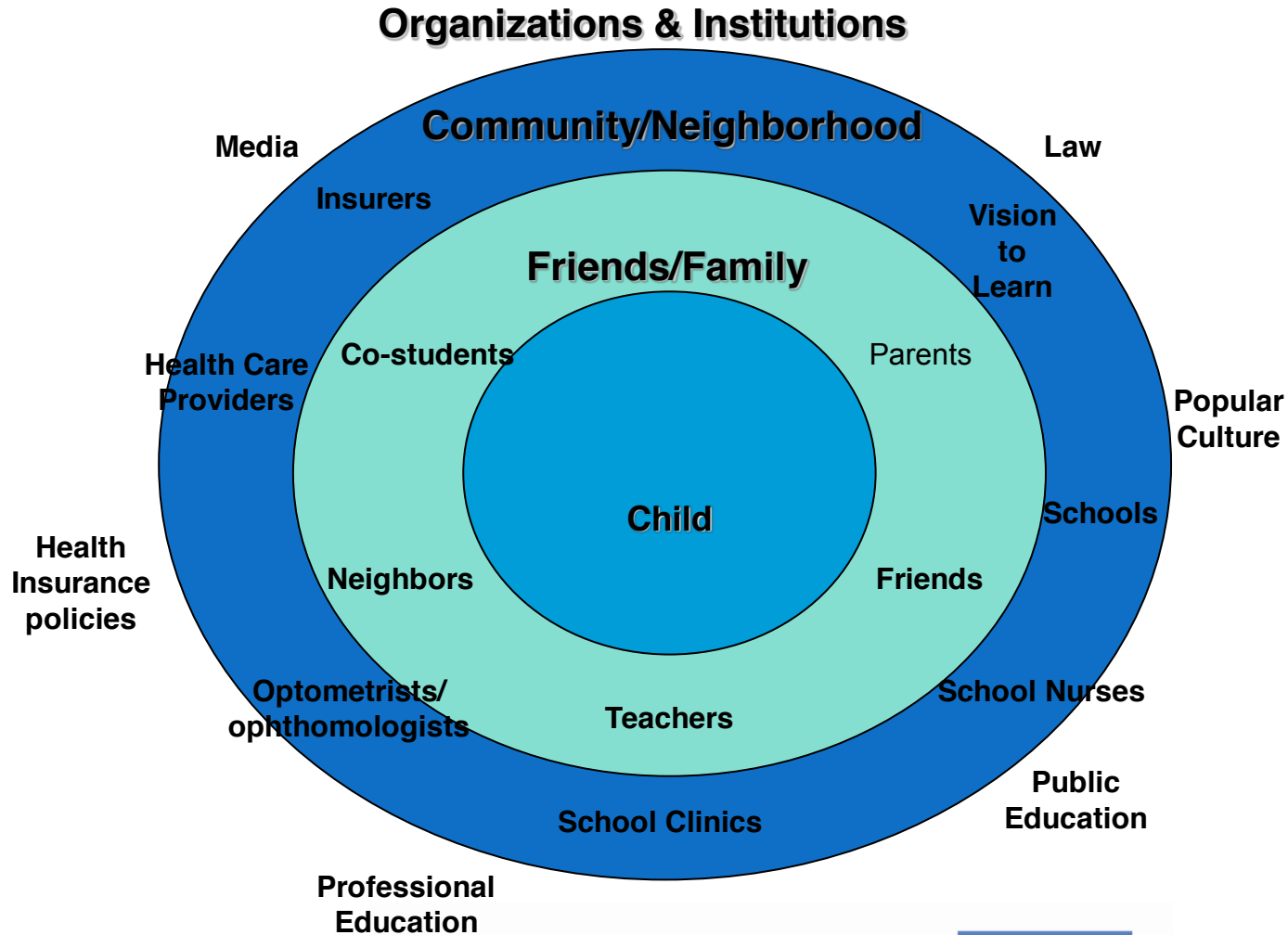
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Teacher

“The bottom line is, if you can’t see very well you either are reading slower, ... or, if you can’t see at all, you’re not doing the work and you give up...And to have Vision to Learn help these children is a wonderful thing, as far as I’m concerned.”



Who are the Stakeholders?



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Strengths of the VTL model

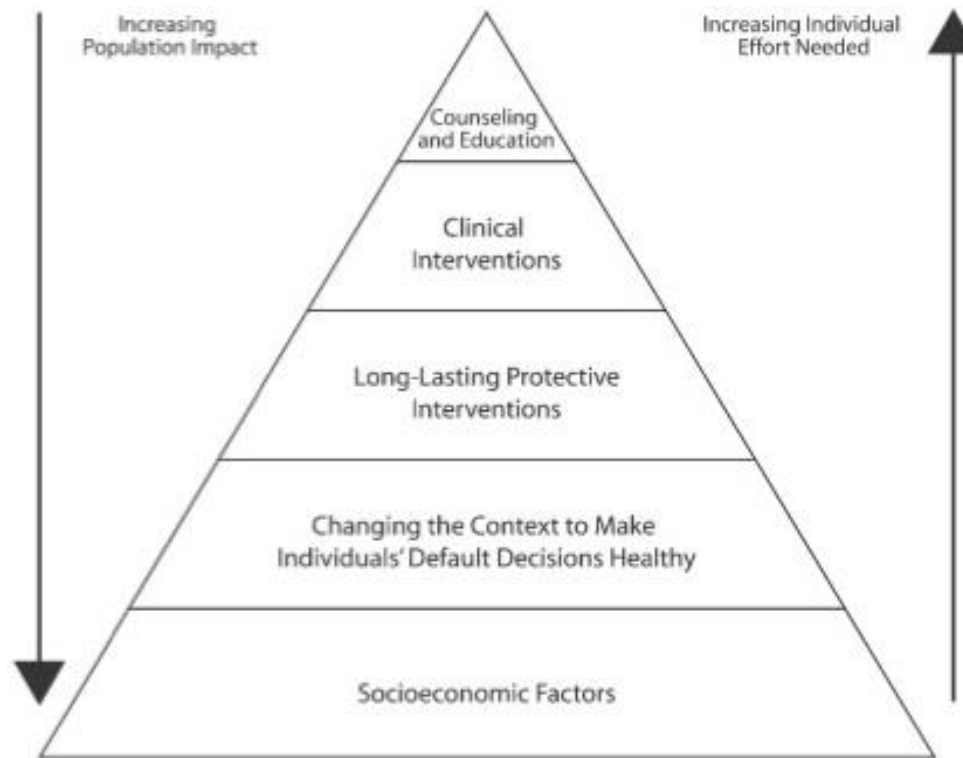


FIGURE 1—The health impact pyramid.

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Steps for Correcting Impaired Vision Where VTL is Positively impacting

Screening Examination*

Referral*

Evaluation to Optometrist*

Prescription*

Purchase glasses*

Wear glasses*

Access to replaced pair*

Outcomes: Improved academics &
reduced psychosocial stress

Question is by how much?
Next Study!!!!



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Implications and next steps

- Need for further research--
quantitative evaluation informed by
these results.
- Submit focus group findings for
publication
- Support the quality of the VTL
program and policies to sustain
services



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If you had to describe VTL in one word, what would it be?

Eye-opening

Grateful

Needed

Amazing

Resourceful

Awesome

Confidence

Excellent

Generous

Beneficial

Success

Accommodating

Focusing

Easily

accessible

Life-changing

Visionary

Fantastic

Convenience

Comfort

Powerful

Appreciation



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Helpful



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MSGoldstein

Tell me and I forget. Teach me and
I remember. Involve me and I learn.
Benjamin Franklin



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