

Manhattan Vision Screening and Follow-up Study (NYC-SIGHT) : Baseline Results and Costs of a Cluster-Randomized Trial

Lisa A Hark (1) , Jason D Horowitz (2) , Prakash Gorroochurn (3) , Lisa Park (2) , Qing Wang (2) , Daniel F Diamond (2) , Noga Harizman (2) , James D Auran (2) , Stefania C Maruri (4) , Desiree R Henriquez (4) , Jailine Carrion (4) , Remy S Manzi Muhire (4) , Yocheved S Kresch (5) , Laura T Pizzi (6) , Eric Jutkowitz (7) , Saloni Sapru (8) , Tarun Sharma (2) , C Gustavo De Moraes (2) , David S Friedman (9) , Jeffrey M Liebmann (2) , George A Cioffi (2)

1 Department of Ophthalmology, Columbia University, Vagelos College of Physicians and Surgeons, 630 W. 168(th) Street, New York, NY 10032; Edward S. Harkness Eye Institute, Columbia University Irving Medical Center, 635 West 165(th) Street, New York, New York. Electronic address: lah112@cumc.columbia.edu.

2 Department of Ophthalmology, Columbia University, Vagelos College of Physicians and Surgeons, 630 W. 168(th) Street, New York, NY 10032; Edward S. Harkness Eye Institute, Columbia University Irving Medical Center, 635 West 165(th) Street, New York, New York.

3 Department of Biostatistics, Columbia University Mailman School of Public Health, 722 W. 168(th) Street, New York, NY 10032.

4 Edward S. Harkness Eye Institute, Columbia University Irving Medical Center, 635 West 165(th) Street, New York, New York.

5 Edward S. Harkness Eye Institute, Columbia University Irving Medical Center, 635 West 165(th) Street, New York, New York; Kresge Eye Institute, Wayne State University School of Medicine, 4717 St Antoine, Detroit, MI 48201.

6 Center for Health Outcomes, Policy, and Economics, Rutgers University Ernest Mario School of Pharmacy, 160 Frelinghuysen Road, Piscataway, NJ 08854.

7 Department of Health Services, Policy & Practice, Brown University School of Public Health, 21 S. Main Street, Providence, RI 02903.

8 Westat Public Health and Epidemiology Practice, 1600 Research Blvd., Rockville, MD 20850.

9 Massachusetts Eye and Ear Infirmary, Harvard Medical School, Glaucoma Service, 243 Charles Street, Boston, MA 02114.

PURPOSE: To describe the 15-month baseline results and costs of the Manhattan Vision Screening and Follow-up Study, which aims to investigate whether innovative community-based eye health screening can improve early detection and management of glaucoma and other eye diseases among high-risk populations.

DESIGN: 5-year prospective, cluster-randomized controlled trial.

METHODS: Individuals age 40+ were recruited from public housing buildings in New York City for an eye health screening (visual acuity (VA) with correction, intraocular pressure measurements (IOP) , and fundus photography) . Participants with VA 20/40 or worse, IOP 23-29 mmHg, or an unreadable fundus image failed the screening and were scheduled for an optometric exam at the same location; those with an abnormal image were referred to ophthalmology. A cost analysis was conducted alongside the study.

RESULTS: 708 participants were screened; mean age 68.6±11.9 years, female (65.1%) , African American (51.8%) and Hispanic (42%) . 78.4% (n = 555) failed the eye health screening; 35% (n= 250) had an

abnormal image and were also referred to ophthalmology. 308 participants attended the optometric exam; 218 were referred to ophthalmology. Overall, 66.1% were referred to ophthalmology. The cost per participant to deliver the eye health screening and optometric exam was \$180.88. The cost per case of eye disease detected was \$273.64.

CONCLUSIONS: This innovative study in public housing developments targeted high-risk populations, provided access to eye-care, and improved early detection of ocular diseases in New York City. The study has identified strategies to overcoming barriers to eye care to reduce eye health disparities.

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