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January 14, 2019

The Honorable Jerome M. Adams, MD United States Surgeon General U.S. Department of Health and Human Services 200 Independence Avenue, S.W. Humphrey Building, Suite 701H Washington, DC 20201

Dear Dr. Adams,

VISION 2020 / USA represents an alliance of over forty U.S. based professional, academic, and non-governmental organizations working together and speaking with one voice to assure quality eye health and vision for all people. VISION 2020 / USA is part of a global initiative created by the World Health Organization and the International Agency for the Prevention of Blindness to promote "A world in which nobody is needlessly visually impaired, where those with unavoidable vision loss can achieve their full potential." Our objectives for vision and eye health are to raise public awareness; advocate for strong prevention, treatment, and rehabilitation programs; facilitate the planning, development, and implementation of these programs, and to ensure that people with vision loss achieve the highest possible level of function and independence.

With this letter, VISION 2020 / USA and its allied organizations request that you initiate a national *Call to Action* for vision and eye health to mark the year 2020. This is an opportune moment for action as rising trends in blindness and visual impairment call for urgent intervention, scientific advances offer powerful new solutions, and the year 2020 provides a unique opportunity to increase our nation's awareness of vision and eye health

In September 2016, the National Academies of Sciences, Engineering, and Medicine (NASEM) issued the report "<u>Making Eye Health a Population Health Imperative: Vision for Tomorrow</u>," which recognizes that for too long, vision and eye health have not received the attention and investment they warrant.

Throughout the NASEM report, several major recommendations call for federal government leadership. The first recommendation of the NASEM report asks that the Secretary of the U.S. Department of Health and Human Services (HHS) through the Office of the Surgeon General issue a *Call to Action* to motivate nationwide action addressing the increasing burden of vision impairment across the lifespan of people in the United States.

Specifically, the NASEM report recommends:

"The Secretary of the U.S. Department of Health and Human Services should issue a call to action to motivate nationwide action toward achieving a reduction in the burden of vision impairment across the lifespan of people in the United States. Specifically, this call to action should establish goals to:

- Eliminate correctable and avoidable vision impairment by 2030,
- Delay the onset and progression of unavoidable chronic eye diseases and conditions,
- Minimize the impact of chronic vision impairment, and



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• Achieve eye and vision health equity by improving care in underserved populations"

This recommendation specifically highlights the role of the Surgeon General in bringing forth a *Call to Action* to publicize the public health problem, detail a vision statement, and provide goals and key actions.

The burgeoning impact of vision loss our country faces demands an urgent response. A *Call to Action* will launch broad multi-sector action that will increase public awareness, improve surveillance, clarify the disability and financial cost from vision loss, help standardize public health and clinical practice, and ultimately, ensure that all people enjoy the lifelong benefits of healthy eyes and clear sight.

The current status of vision and eve health in the U.S.

While calculating precise estimates for the burden and composition of vision impairment in the United States is challenging because nationwide epidemiological data is limited, we do know that some 6 million Americans suffer from uncorrectable vision impairment or blindness. About half of the U.S. population (likely over 150 million people) relies on glasses or contact lenses to correct their refractive error and see clearly - yet as many as one third of these remain un-diagnosed or uncorrected. Under diagnosed and under corrected refractive error is now the most common cause of visual impairment in the U.S. Cataracts, glaucoma, age-related macular degeneration, and other diseases affect almost 30 million Americans over the age of forty. Diabetic retinopathy is the leading cause of new cases of blindness in working age adults.

As our nation's life expectancy continues to rise, these numbers are expected to grow. Because eye diseases and conditions become more common in our later years, the number of blind and visually impaired people will double by the year 2050 as the U.S. population ages.⁶

Americans treasure their ability to see; research consistently reports that the loss of our vision is among our greatest health fears. As a cornerstone of our daily life, the ability to see well strongly impacts everything we do – from a child's chances for a quality education to our pursuit of employment and our hopes for an independent and enjoyable retirement. Consequently, the loss of vision carries a heavy toll for both individuals and society. People encountering vision loss face a future more likely to be burdened by depression, a higher risk of falls, loss of driving privileges, social isolation, and poverty. Social isolation, and poverty.

Education and vision

Vision and eye health problems affect children as well. An estimated one out of five preschool children have vision problems ^{10,11,12,13} and one in four school-age children wear corrective eyewear in this country. ¹⁴ Left unidentified and uncorrected, vision problems can challenge a child's general development, ¹⁵ school performance, ¹⁶ social interactions, ¹⁷ and self-esteem. ¹⁸ Childhood vision disorders, especially those that remain untreated, often manifest as problems well into adulthood, affecting an individual's level of education, employment opportunities, and social interactions. ¹⁹

In some cases, students with undiagnosed vision impairment may be misdiagnosed with learning disabilities because of undetected vision problems^{20,21} As children only have a few short years to learn to read before they read to learn, early diagnosis and treatment of vision impairments is crucial. Early intervention is crucial to preserve vision and can bolster a child's self-esteem, elevate reading comprehension, boost test scores, and lessen behavior problems.



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Financial costs

Economically, vision loss and eye disease were estimated to cost the U.S. \$ 145 billion in 2014, making it the fifth most expensive health condition. Our aging and changing demographics could quintuple this economic toll to \$717 billion a year by 2050.²² The financial well-being of each individual who experiences vision loss is likely to deteriorate as well. Early intervention, diagnosis, and treatment can often prevent vision loss and could reduce the economic burden from preventable chronic visual impairment.²³

Opportunities and challenges

Fortunately, the heavy personal and economic burden of vision and eye problems can now often be prevented. Scientific advances can now offer effective treatments for major causes of vision loss in the U.S. Modifiable risk factors, such as time spent outdoors in childhood, diet, and exercise, can also greatly reduce the impact of vision loss and blindness. Recent innovations in retinal and optic nerve imaging have transformed glaucoma care. We can now detect this disease early and with precision, often prior to its hallmark nerve injury preventing this lead cause of vision loss among African Americans. Our ability to pre-empt and often reverse the damage to the eye from macular degeneration has advanced dramatically with new vascular growth inhibitors. This previously difficult-to-treat disease is now regularly addressed with routine clinic based treatments. Cataract surgery is highly cost-effective and widely available.

Diabetic retinopathy, which could surge in prevalence in coming years because of epidemic levels of diabetes, can now be treated effectively if diagnosed before major injury occurs. Telemedicine and artificial intelligence systems are useful tools in the hands of eye care providers and can improve access to care for the 100 million Americans at risk, yet will require further investment and leadership to serve their full potential. Many cases of vision loss originating in childhood can be prevented with early detection and treatment, sparing a lifetime of avoidable visual impairment or blindness for many Americans.

Our nation's public health leadership holds a unique opportunity to effect powerful change. Proven strategies to address the problem of eye disease and vision impairment could realize a powerful return on investments in our nation's vision and eye health, especially with the rising trends of U.S. vision loss. U.S. public health priorities have yet to fully recognize the broad impact of vision loss and eye disease and offer only limited support to reverse current trends. Our surveillance systems are inadequate to effectively identify the population groups and communities most affected by specific diseases.

Conclusion

The NASEM report lays out a series of recommendations to achieve its stated objectives that: "(1) no person should live with vision impairment that could have been avoided or could be treated and (2) every person with chronic vision impairment should have access to community and health services that minimize the impact of vision loss on overall health and life."²⁴ To achieve these goals NASEM recommends a national Call to Action around solving the challenge of vision and eye health and is an important first step.

We at VISION 2020 / USA believe that the year 2020 will provide a rare and powerful opportunity to tap into the American public's awareness of vision and eye health. We, and the citizens of the United States, need your help to lead this effort and build a strong multi-sector response to this challenge.



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A *Call to Action* from the Office of the Surgeon General would provide our country with the direction and stimulus needed to align our national resources and address this urgent public health problem. The resulting investments in vision and eye health will prove to be highly cost-effective, both in the sphere of direct health care expenditures and as a powerful aide to the economic well-being of individuals and communities around our country. We believe the stature and weight of your office will be critical if we are to protect Americans against the rising tide of vision loss.

We look forward to the opportunity to forge a strong partnership between VISION 2020 / USA and the Office of the Surgeon General. We welcome the opportunity to meet with you in person and to further discuss specifics for this request for A *Call to Action* and the work of VISION 2020 / USA. Should you have any questions, or if we can be of any assistance, please do not hesitate to contact Dr. Mitchell Brinks, Chair of VISION 2020 / USA at brinks@oshu.edu or (503) 494-3034.

Sincerely,

Mitchell V. Brinks, MD, MPH Chair, VISION 2020 / USA

Members' signatures to follow;

¹ Varma, R., T. S. Vajaranant, B. Burkemper, S. Wu, M. Torres, C. Hsu, F. Choudhury, and R. McKean-Cowdin. 2016. Visual impairment and blindness in adults in the United States: Demographic and geographic variations from 2015 to 2050. *JAMA Ophthalmology*.

² Wittenborn, J., and D. Rein. 2013. *Cost of vision problems: The economic burden of vision loss and eye disorders in the United States*. New York: Prevent Blindness America.

³ Vitale, S., L. Ellwein, M. F. Cotch, F. L. Ferris, and R. Sperduto. 2008. Prevalence of refractive error in the United States, 1999–2004. *Archives of Ophthalmology* 126(8):1111–1119.

⁴ National Eye Institute. 2016. Prevalence of Adult Vision Impairment and Age-Related Eye Diseases in America. https://nei.nih.gov/eyedata/adultvision_usa. Accessed October 2018.

⁵ CDC (Centers for Disease Control and Prevention). 2011a. National diabetes fact sheet: National estimates and general information on diabetes and prediabetes in the United States, 2011. Atlanta, GA: CDC. http://www.cdc.gov/diabetes/pubs/pdf/ndfs 2011.pdf

⁶ Varma, R et al, "Visual impairment and blindness in adults in the United States: Demographic and Geographic Variations from 2015 to 2050," JAMA Ophthalmology, <u>DOI:10.1001/jamaophthalmol.2016.1284.</u>

⁷ Scott AW, Bressler NM, folkes S, Wittenborn JS, Jorkasky J. Public Attitudes About Eye and Vision Health. *JAMA Ophthalmol.* 2016;134(10):1111–1118. doi:10.1001/jamaophthalmol.2016.2627



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- ¹⁰ Multi-Ethnic Pediatric Eye Disease Study Group. Prevalence of myopia and hyperopia in 6- to 72-month-old African American and Hispanic children: the Multi-Ethnic Pediatric Eye Disease Study. Ophthalmology 2010; 117:140-47.
- ¹¹ Wen G, Tarczy-Hornoch K, McKean-Cowdin R, et al. Prevalence of myopia, hyperopia, and astigmatism in non-Hispanic white and Asian children: Multi-Ethnic Pediatric Eye Disease Study. Ophthalmology 2013; 120:2109-16.
- ¹² Multi-Ethnic Pediatric Eye Disease Study Group. Prevalence of amblyopia and strabismus in African American and Hispanic children ages 6 to 72 months: the Multi-Ethnic Pediatric Eye Disease Study. Ophthalmology 2008; 115:1229-36.
- ¹³ McKean-Cowdin R, Cotter SA, Tarczy-Hornoch K, et al. Prevalence of amblyopia or strabismus in Asian and non-Hispanic white preschool children: Multi-Ethnic Pediatric Eye Disease Study. Ophthalmology 2013; 120:2117-24.
- ¹⁴ Kemper AR, Bruckman D, Freed GL. Prevalence and distribution of corrective lenses among school-age children. Optom Vis Sci 2004; 81:7-10.
- ¹⁵ Roch-Levecq AC, Brody BL, Thomas RG, Brown SI. Ametropia, preschoolers' cognitive abilities, and effects of spectacle correction. Arch Ophthalmol 2008; 126:252-58.
- ¹⁶ Goldstand S, Koslowe KC, Parush S. Vision, visual-information processing, and academic performance among seventh-grade schoolchildren: a more significant relationship than we thought? Am J Occup Ther 2005; 59:377-89.
- ¹⁷ Mojon-Azzi SM, Kunz A, Mojon DS. Strabismus and discrimination in children: are children with strabismus invited to fewer birthday parties? Br J Ophthalmol 2011; 95:473-76.
- ¹⁸ Webber AL, Wood JM, Gole GA, Brown B. Effect of amblyopia on self-esteem in children. Optom Vis Sci 2008; 85:1074-81.
- ¹⁹ Davidson S, Quinn GE. The impact of pediatric vision disorders in adulthood. Pediatrics 2011; 127:334-39.
- ²⁰ DeCarlo DK, ADHD and Vision Problems in the National Survey of Children's Health. Optom Vis Sci. 2016 May;93(5):459-65
- ²¹ Solé Puig M, Attention-Related Eye Vergence Measured in Children with Attention Deficit Hyperactivity Disorder. PLoS One. 2015 Dec 22;10(12): e0145281
- ²² Wittenborn, J., and D. Rein. 201. *The Future of vision: Forecasting the prevalence and cost of vision problems.* Chicago, IL: NORC at the University of Chicago.
- ²³ Wittenborn, J., and D. Rein. 2016. *The potential costs and benefits of treatment for undiagnosed eye disorders*. Paper prepared for the Committee on Public Health Approaches to Reduce Vision Impairment and Promote Eye Health.

 $\frac{\text{http://www.nationalacademies.org/hmd/}^{\sim}/\text{media/Files/Report\%20Files/2016/UndiagnosedEyeDisordersCommissionedPaper.pdf.}$

²⁴ National Academies of Sciences, Engineering, and Medicine. 2016. *Making eye health a population health imperative: Vision for tomorrow.* Washington, DC: The National Academies Press.

⁸ Ivers QR, Cumming GR, Mitchell P & Peduto JA. Risk factors for fractures of the wrist, shoulder and ankle: the Blue Mountains Eye Study. Osteoporos Int 2002; 13: 513–518.

⁹ Crews JE, Chou CF, Zack MM, Zhang X, Bullard KM, Morse AR, Saaddine JB. The association of health-related quality of life with severity of visual impairment among people aged 40–64 years: Findings from the 2006–2010 Behavioral Risk Factor Surveillance System. Ophthalmic Epidemiology. 2016b;23(3):145–153.

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The Association for Research in Vision and Ophthalmology Iris M. Rush, CAE Executive Director



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Vision for Everyone Everywhere ...

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Dana Center for Preventive Ophthalmology David Steven Friedman Director

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Lions Clubs International
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