**MAKING EYE HEALTH A POPULATION HEALTH IMPERATIVE**

**VISION FOR TOMORROW**

Steven M. Teutsch, Margaret A. McCoy, R. Brian Woodbury, and Annalyn Welp, *Editors*

Committee on Public Health Approaches to Reduce Vision Impairment and Promote Eye Health

Board on Population Health and Public Health Practice Health and Medicine Division

A Report of

The National Academies of

Science Engineering Medine

Chapter 8: Meeting the Challenge of Vision Loss in

the United States: Improving Diagnosis,

Rehabilitation, and Accessibility

BOX 8-1

• Research is needed to determine and compare the cost, effectiveness, and

cost-effectiveness of different vision rehabilitation models of care, and to

ascertain the effect of greater integration of vision rehabilitation services on

patient outcomes and care access and quality.

• Research is needed to determine and compare the cost, effectiveness, and

cost-effectiveness of vision rehabilitation services and interventions including

optical and non-optical low vision aids, mobility aids, environmental modifications,

and adaptive strategies, and to develop effective, evidence-based training

programs on the use of these and other interventions and services.

• Research is needed to identify the vision rehabilitation needs of children, minority

groups, developmentally disabled populations, individuals with common

comorbidities of vision impairment, and populations living in medically underserved

areas, and to develop vision rehabilitation services and interventions

that address these needs.

• Research in needed to determine the extent of awareness of vision rehabilitation

among patients, providers, and the public health workforce in the United

States, and to develop effective health education campaigns and other programs

to eliminate lack of awareness of vision rehabilitation.

• Research is needed to assess how the organization, distribution, and scope of

vision rehabilitation services affects care access and quality, and to determine

how vision rehabilitation services at the national, state, and local levels could

be designed to best meet patient needs. (NASEM, Chapter 8)

Chapter 9 Eye and Vision Health:

Recommendations and a Path to Action

Recommendation 1

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

Making Eye Health a Population Health Imperative: Vision for Tomorrow

Copyright National Academy of Sciences. All rights reserved.

RECOMMENDATIONS AND A PATH TO ACTION 433

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

populations.

Recommendation 2

The Secretary of the U.S. Department of Health and Human Services, in

collaboration with other federal agencies and departments, nonprofit and

for-profit organizations, professional organizations, employers, state and

Making Eye Health a Population Health Imperative: Vision for Tomorrow

Copyright National Academy of Sciences. All rights reserved.

RECOMMENDATIONS AND A PATH TO ACTION 435

local public health agencies, and the media, should launch a coordinated

public awareness campaign to promote policies and practices that encourage

eye and vision health across the lifespan, reduce vision impairment, and

promote health equity. This campaign should target various stakeholders

including the general population, care providers and caretakers, public

health practitioners, policy makers, employers, and community and patient

liaisons and representatives.

Recommendation 3

The Centers for Disease Control and Prevention (CDC) should develop

a coordinated surveillance system for eye and vision health in the United

States.

Recommendation 4

The U.S. Department of Health and Human Services should create an interagency

workgroup, including a wide range of public, private, and community

stakeholders, to develop a common research agenda and coordinated

eye and vision health research and demonstration grant programs that

target the leading causes, consequences, and unmet needs of vision impairment.

This research agenda should include, but not be limited to:

• Population-based epidemiologic and clinical research on the major

causes and risks and protective factors for vision impairment, with

a special emphasis on longitudinal studies of the major causes of

vision impairment;

• Health services research, focused on patient-centered care processes,

comparative-effectiveness and economic evaluation of clinical

interventions, and innovative models of care delivery to improve

access to appropriate diagnostics, follow-up treatment, and rehabilitation

services, particularly among high-risk populations;

• Population health services research to reduce eye and vision health

disparities, focusing on effective interventions that promote eye

healthy environments and conditions, especially for underserved

populations; and

* Research and development on emerging preventive, diagnostic, therapeutic,

and treatment strategies and technologies, including efforts

to improve the design and sensitivity of different screening protocols.

Recommendation 5

The U.S. Department of Health and Human Services should convene

one or more panels—comprising members of professional organizations,

researchers, public health practitioners, patients, and other stakeholders—

to develop a single set of evidence-based clinical and rehabilitation practice

guidelines and measures that can be used by eye care professionals, other

care providers, and public health professionals to prevent, screen for, detect,

monitor, diagnose, and treat eye and vision problems. These guidelines and

supporting evidence should be used to drive payment policies, including

coverage determinations for corrective lenses and visual assistive devices

following a diagnosed medical condition (e.g., refractive error).

Recommendation 6

To enable the health care and public health workforce to meet the eye

care needs of a changing population and to coordinate responses to visionrelated

health threats, professional education programs should proactively

recruit and educate a diverse workforce and incorporate prevention and

detection of visual impairments, population health, and team care coordination

as part of core competencies in applicable medical and professional

education and training curricula. Individual curricula should emphasize

proficiency in culturally competent care for all populations.

Recommendation 7

State and local public health departments should partner with health care

systems to align public health and clinical practice objectives, programs,

and strategies about eye and vision health to:

• Enhance community health needs assessments, surveys, health

impact assessments, and quality improvement metrics;

• Identify and eliminate barriers within health care and public health

systems to eye care, especially comprehensive eye exams, appropriate

screenings, and follow-up services, and items and services

intended to improve the functioning of individuals with vision

impairment;

• Include public health and clinical expertise related to eye and vision

health on oversight committees, advisory boards, expert panels,

and staff, as appropriate;

• Encourage physicians and health professionals to ask and engage in

discussions about eye and vision health as part of patients’ regular

office visits; and

Incorporate eye health and chronic vision impairment into exi

quality improvement, injury and infection control, and behav change programs related to comorbid

chronic conditions, co nity health, and the elimination of health disparities.

Recommendation 8

To build state and local public health capacity, the Centers for Disease Control

and Prevention should prioritize and expand its vision grant program,

in partnership with state-based chronic disease programs and other clinical

and nonclinical stakeholders, to:

• Design, implement, and evaluate programs for the primary prevention

of conditions leading to visual impairment, including policies

to reduce eye injuries;

• Develop and evaluate policies and systems that facilitate access to,

and utilization of, patient-centered vision care and rehabilitation

services, including integration and coordination among care providers;

and

• Develop and evaluate initiatives to improve environments and

socioeconomic conditions that underpin good eye and vision health

and reduce eye injuries in communities.

Recommendation 9

Communities should work with state and local health departments to translate

a broad national agenda to promote eye and vision health into welldefined

actions. These actions should encourage policies and conditions

that improve eye and vision health and foster environments to minimize the

impact of vision impairment, considering the community’s needs, resources,

and cultural identity. These actions should:

• Improve eye and vision health awareness among different social

groups within communities;

• Engage community organizations and groups to promote eye and

vision health awareness in daily activities;

• Establish and enforce laws and policies intended to promote eye

safety and the functioning of people with vision impairment;

• Identify the need for, and community-level barriers to, visionrelated

services and resources in their communities; and

• Adopt policies and create community networks that support the

design of built environments and the establishment of social environments

that promote eye and vision health and independent

functioning.