Phase Two of VisionServe Alliance's Big Data Project: Characteristics of People with Blindness and Low Vision Aged 18-64 Years of Age Working and Not Working Data Analysis

Understanding the prevalence of vision impairment among people of working age (ages 18 to 64 years), the circumstances they experience and the distribution across employment categories will be useful to improve opportunities to promote work as well as improve overall health and quality of life of working aged people. Because the prevalence of vision impairment and the circumstances that promote employment—including health, income, and education—vary widely from state to state, creating a granular state level report will likely produce sufficient actionable data to help promote increased employment in a variety of communities across the nation.

The Project Design

VisionServe Alliance will contract with the Van Nasdale Group LLC to conduct a simple analysis of Behavioral Risk Factor Surveillance System (BRFSS) Data to provide insight into the prevalence and characteristics of working aged people with vision impairment at the national level and among selected states.

The BRFSS, designed and administered by the CDC, provides considerable insight into the working age population. The survey asks the following vision question: "Are you blind or do you have serious difficulty seeing, even when wearing glasses?" The BRFSS is primarily designed to inform public health policy; therefore, it asks about health, health behaviors, health conditions, health care access, health-related quality of life, as well as six standard disability questions. The BRFSS asks eight employment questions: two questions describe people who are working (employed for wages, self-employed), two questions ask about people who are out of work (out of work for 1 year or more, out of work for less than 1 year), and four questions capture people who are not working for pay, including student, homemaker, retired, and "unable to work."

Mining the BRFSS will allow us to construct a profile of people with vision impairment who are working compared to people with vision impairment who are not working, as well as those who perceive themselves as unable to work. This inquiry will uncover some of the circumstances that promote or discourage work. The BRFSS concentrates on health and quality of life concerns. For example, improving overall health might increase the likelihood of workforce participation. Unfortunately, the BRFSS does *not* address some barriers to employment, including transportation, geographic proximity to work, or willingness to work. Those questions may be answered by future studies.

Deliverables

1. Produce two tables as illustrated in table shells below. Table 1 will provide demographic characteristics of subjects. Table 2 will provide Social and Health Characteristics of working age people stratified by eight work categories.
2. Two pages of narrative describing demographic characteristics of population.
3. Two pages, plus or minus, description of methods.

4. A national report will be produced plus at least 29 state reports based upon sample size, local interest and financial support (more reports can be written if funding is secured.)
5. A webinar will be produced and recorded to provide readers of the reports with greater understanding of how to interpret the data.

Exploratory Table 1. Distribution of Demographic Characteristics of People Aged 18-64 Years with Vision Impairment by Employment and Health Status, BRFSS DRAFT April 1. 2023

	Vision Impaired								Total
	Working		Not Working		Unable	Out of labor market			100%
	Employed Wages	Self Employed	Out of work 1+ yr	Out of work	Unable	Home-maker	Student	Retired	
Estimated population									
Percent Distribution									
Demographics									
AGE									
18-44									
45-64									
SEX									
Male									
Female									
MARITAL STATUS									
Married									
Single									
RACE/ETHNICITY									
White									
Black									
Asian									
Native American									
Hispanic									

Exploratory Table 2. Social and Health Characteristics of People Aged 18-64 Years with Vision Impairment by Employment and Health Status, BRFSS April

	Vision Impaired							
	Working		Not Working		Unable	Out of Labor Market		
	Employed Wages	Self Employed	Out of work 1+ year	Out of work >year	Unable	Home-maker	Student	Retired
Demographics								
AGE								
18-44								
45-64								
SEX								
Male								
Female								
MARITAL STATUS								
Married								
Single								
RACE/ETHNICITY								
White								
Black								
Asian								
Native American								
Hispanic								
EDUCATION								
Never attended school								
Grades 1-8								
Some High School								
HS Graduate								
Some College or technical school								
College Graduate								
INCOME								
More than $10,000 less than $15,000								
$15,000 to less than $20,000								
$20,000 to less than $25,000								
$25,000 to less than $35,000								

$35,000 to less than $50,000								
$50,000 to less than $75,000								
$75,000 or more								
CHRONIC CONDITIONS								
Diabetes								
Depression								
Stroke								
Angina or coronary heart disease								
Asthma								
High blood cholesterol								
Any cancer								
heart attack (Myocardial Infarction)								
chronic obstructive pulmonary disease, C.O.P.D., emphysema or chronic bronchitis								
Kidney disease								
Arthritis								
Do arthritis or joint symptoms now affect whether you work, the type of work you do or the amount								
Health								
HRQoL								
Mental Health								
Physical Heath								
Activity Limitation								
Disability Measures								
Mobility								

Hearing								
Cognition								
Dressing/Bathing								
Running Errands								
SDOH								
Income								
Insurance								
Doctor								
Health Behavior								
Weight/Height BMI								
Exercise								
Smoking								
Drinking								

1 Employed for wages 2 Self-employed 3 Out of work for 1 year or more 4 Out of work for less than 1 year 5 A Homemaker 6 A Student 7 Retired Or 8 Unable to work Do not read: 9 Refused

Staffing

Dean A. VanNasdale, OD, PhD, MS, FAAO, will serve as the Principal Investigator for this project. Dr. VanNasdale will provide overall supervision and guidance to this project. Dr. VanNasdale is a tenured Associate Professor in the College of Optometry at The Ohio State University. Dr. VanNasdale has expertise in vision and population health, conducting large population-based studies, as well as teaching the public health curriculum, providing clinical supervision, and mentoring masters and PhD students in vision science.

John E. Crews, DPA, serves as the Lead Investigator of this project. Dr. Crews is a retired Senior Health Scientist in the Vision Health Initiative at the Centers for Disease Control and Prevention in Atlanta. Dr. Crews has conducted extensive research in vision and public health, contributing over 125 peer reviewed articles and book chapters.

Costs

The retail value of each report is $15,000. VisionServe Alliance is working to secure financial commitments in advance of the reports being produced from foundations, national organizations and member organizations, to cover initial costs. All organizations interested in receiving a copy of the proprietary reports will be asked to pay some price up to the $15,000 value. NIB Affiliated and NAEPB Member organizations (as well as VisionServe Alliance members) may receive a discount to access the reports based upon the support the project receives from each of these organizations in advance. The price of each report will be established following the initial round of funding is complete.

Timeline

Assuming initial financial sponsorship of the project is secured in the next 30 days, the data will be run in August and the National Report will be completed by mid-September

(if not earlier). Based upon the population sizes we see in the national report and interest expressed by leaders in each state, the initial 29 states to be run and reported will be selected and prioritized. Reports will be produced throughout October-December, with the final batch completed no later than January 31, 2024. Additional state reports beyond the initial 29 can be requested and produced in the Spring of 2024 (with financial sponsorship.)

Limitations and Constraints in this Inquiry

Difficulty in Identifying Target Population: A variety of rehabilitation programs are involved in assisting people with vision impairment to find work, remain in the workplace, or provide work opportunities. These organizations are, of course, concerned about identifying a pool of people who wish to work so they can participate in vocational rehabilitation programs and enter or remain in the workplace. Some people with vision impairment who want to work will seek out a rehabilitation agency. Others want to work but may not know about resources available to them. Still others may experience disincentives to work, including disability transfer income for people who cannot work. Some believe making the transition from financial support systems to the workplace may be too risky to return to work. Other people work in a cash economy that supplements disability income. Other people may experience health and disability circumstances so severe that work is not an option. Identifying those people who can and want to work within this varied pool of individuals represents a major challenge for agencies wishing to employ or provide the skills for employment.

Within this complex environment, it is still possible to gain substantial insight to improve decision making and strategic planning to improve access to work and vocational rehabilitation.

This task is immediately complex and thorny because the population of working aged people with vision impairment is smaller than the older (age 65 years and older) population. Teasing out those who are working and those who cannot work from those who might seek work is complex. Moreover, obtaining information at a sufficiently granular level to inform vision rehabilitation programs makes this inquiry substantially more complex.

This analysis will provide much more valid information for strategic planning and advocacy than we have ever had. It is shocking to think about the breadth of policy enacted in the absence of this kind of data.

A webinar will be produced to explain how to interpret the data and tables and technical assistance zoom calls arranged for all interested sponsoring parties.