

Public (Population) Health Approach to Vision Care

Rajeev S. Ramchandran, MD, MBA

Flaum Eye Institute

**Associate Professor of Ophthalmology, Public Health Sciences,
and Center for Community Health & Prevention**

Health Care Innovations Conference, Rochester, NY

November 13, 2019



Disclosures

- None

Prevent Blindness America Implementing Population Eye Health Strategy



CENTER FOR
VISION AND
POPULATION
HEALTH

at Prevent Blindness

Led By: Heather Whitson, MD,

- Geriatrician at Duke University
- Associate Professor of Medicine & Ophthalmology
- Deputy Director of the Duke Center for the Study of Aging and Human Development



Access and equity = the right resource, for the right person, at the right time, in the right way

RIGHT RESOURCE



- Holistic admissions for health professions
- Expand paraprofessional role in eye health
- Optimizing payment streams
- Evidence-based guidelines

RIGHT PERSON



- 0-3 year old assessment
- Preschool and school-age sustainable programs
- Adult coverage for eye services
- Addressing multiple vision need for elders

RIGHT TIME



- Periodicity and evidence-based guidelines
- Timely access
- Responsive and resourceful care

RIGHT WAY



- Accountability
- Culturally and linguistically appropriate services
- Improved scheduling and care options
- Family- and community-centered

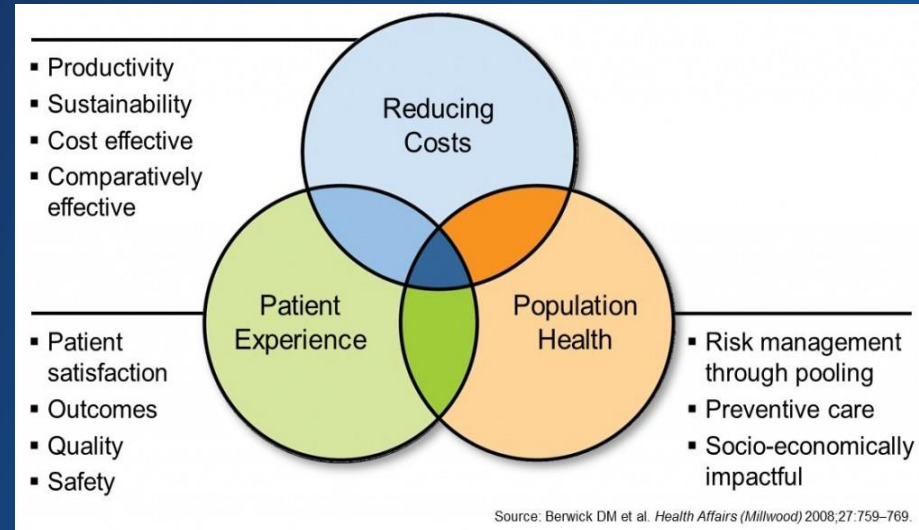
Summary of Some Data Sources for Population Health

1. Examination Based Population Studies
2. Nationally Sampled Surveys – usually self-report
3. Administrative Claims Data – limited to insured patients
4. EMR Registries – eye care patients
5. Local Eye Care Surveillance Data – Screenings/Telemedicine/Public Health Outreach

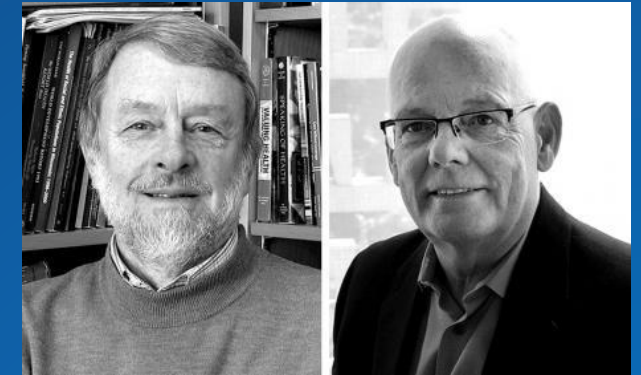
Population Health



CDC Public Health Approach



Institute of Health Care Innovation Triple Aim Population Health Management



David Kindig of the University of Wisconsin (left) and Greg Stoddart of McMaster University

“The health outcomes of a group of individuals, including the distribution of such outcomes within the group.”

—Kindig & Stoddart 2003

Fits Biopsychosocial Model of Health - WHO definition of health of population in 1946 as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity."[[]

Emphasize both defining the measurement of health outcomes of interest and understanding the pattern of determinants that influence these outcomes.

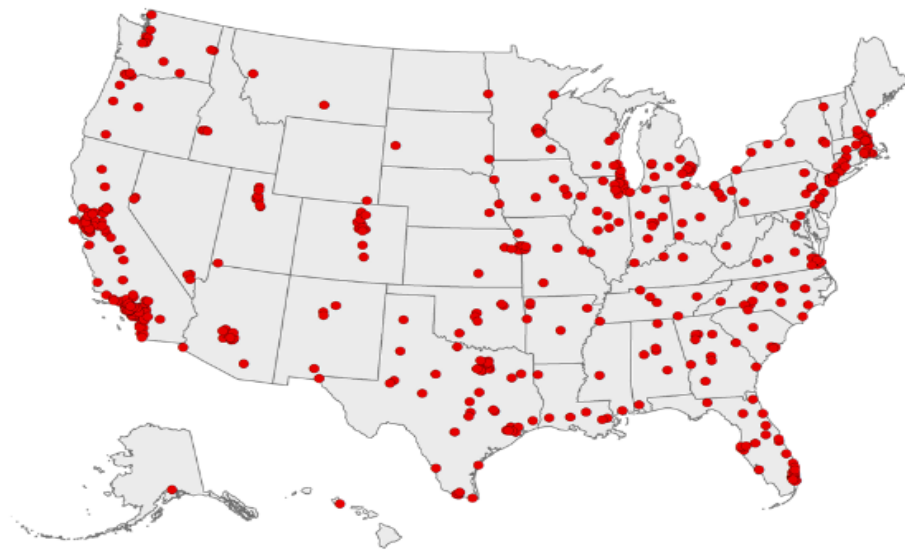
CDC & RWJF National Surveillance & Local Health Data

<https://www.cdc.gov/500cities/index.htm>

The 500 Cities project is a collaboration between CDC, the Robert Wood Johnson Foundation, and the CDC Foundation. The purpose of the 500 Cities Project is to provide city- and census tract-level small area estimates for chronic disease risk factors, health outcomes, and clinical preventive service use for the largest 500 cities in the United States. These small area estimates will allow cities and local health departments to better understand the burden and geographic distribution of health-related variables in their jurisdictions, and assist them in planning public health interventions. [Learn more about the 500 Cities Project.](#)



[View data across the United States for the largest 500 cities](#)



New York

Select one
Health Insurance
Annual Checkup
Dental Visit

View data

Select a measure
Taking BP Medication
Cholesterol Screening
Mammography
Pap Smear Test
Colorectal Cancer Screening
Core preventive services for men
Core preventive services for women

Category

Measure
Dental Visit

Compare Cities Report

Compare up to three cities for all measures. Start by selecting one city.

City

NEW YORK STATE

Services News Government

Department of Health
Information for a Healthy New York

You are Here: [Home Page](#) > [State and County Indicators For Tracking Public Health Priority Areas](#) > Monroe County Indicators For Tracking Public Health Priority Areas

Monroe County Indicators For Tracking Public Health Priority Areas

Indicator	Prevention Agenda 2013 Objective	US	NYS	Monroe County
ACCESS TO QUALITY HEALTH CARE				
% of adults with health care coverage ¹ Map of adults with health insurance	100%†	82.1% ^a (2011)	85.3% (2011)	88.9%* (2009)
% of adults with regular health care providers ¹ Map of adults with regular health care providers	96%†	86% ^a (2008)	83.6% (2011)	90.9%* (2009)
% of adults who have seen a dentist in the past year ¹ Map of % of adults with a dental visit in the last year	83%†	69.9% ^a (2010)	72.5% (2010)	77.7%* (2009)
Early stage cancer diagnosis²				
Breast	80%	60% (2002-2008)	64.8%	68.3%
Cervical	65%	47% (2002-2008)	42.0%	41.6%
Colorectal	50%	38% (2002-2008)	43.6% (2009)	51.2% (2008-2010)
TOBACCO USE				
% cigarette smoking in adolescents ³ (past month)	10%	18.1% (2011)	12.5% (2011)	NA
% cigarette smoking in adults ¹ Map of Adults who are current smokers	12%†	21.2% ^a (2011)	18.1% (2011)	19.6% (2009)

Health Insurance

Primary Care

Dental Care

Cancer Screening

Smoking

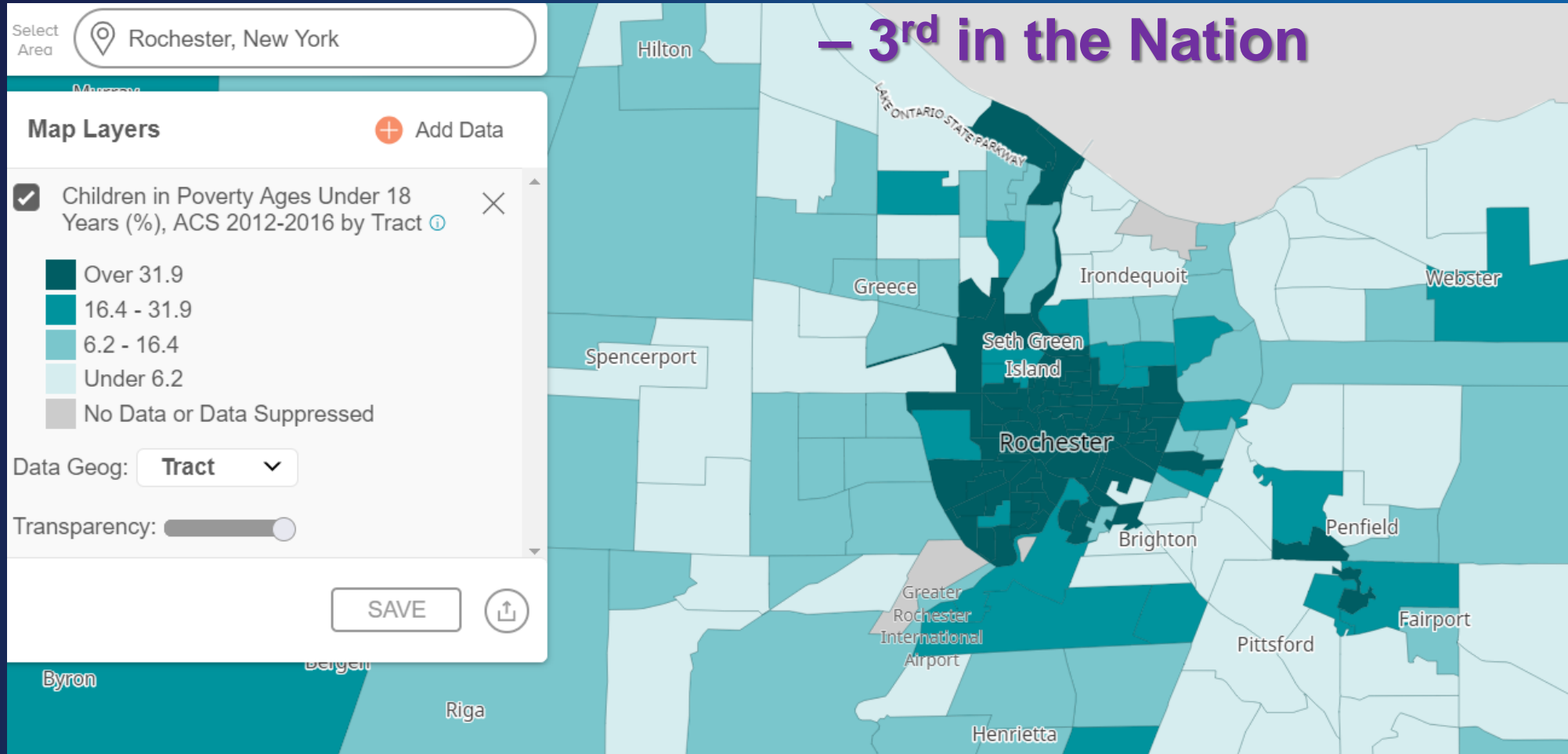
- No Tracking of Vision/Eye Health Metrics

Social Determinants of Health – Who & Where

d

<https://communitycommons.org>

56% of Rochester's Children are Poor
– 3rd in the Nation



FEI has Screened nearly 1000 Students in RCSD & Greece

- **20% Do not Pass Vision Screening**
- **Many Not Complete Vision Screening**



New York State Association
of School Nurses

2017 – Flaum Technicians Partnered with School Nurses to help with school screenings

2017-18: RCSD Schools: 300 students

2018-19: Greece School:

Arcadia Middle School: 7th grd, 75 students

Autumn Lane: Pre K-1, 180 students

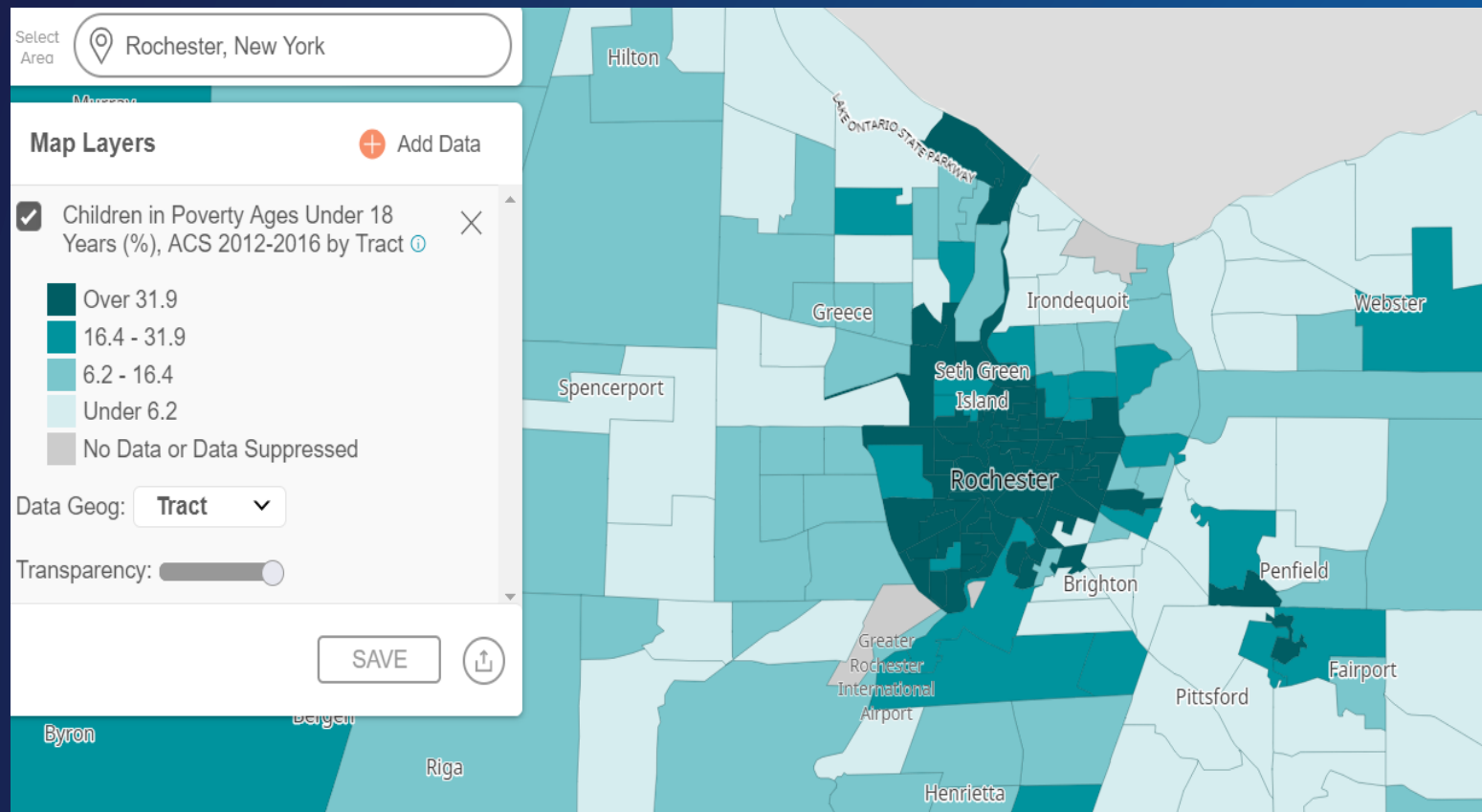
Holmes Road: Pre K, K, 200 students

Projected by the end of the school year:

Renaissance: 1st, 3rd, 5th, 200 students

Long Ridge: 3rd & 5th, 275 students

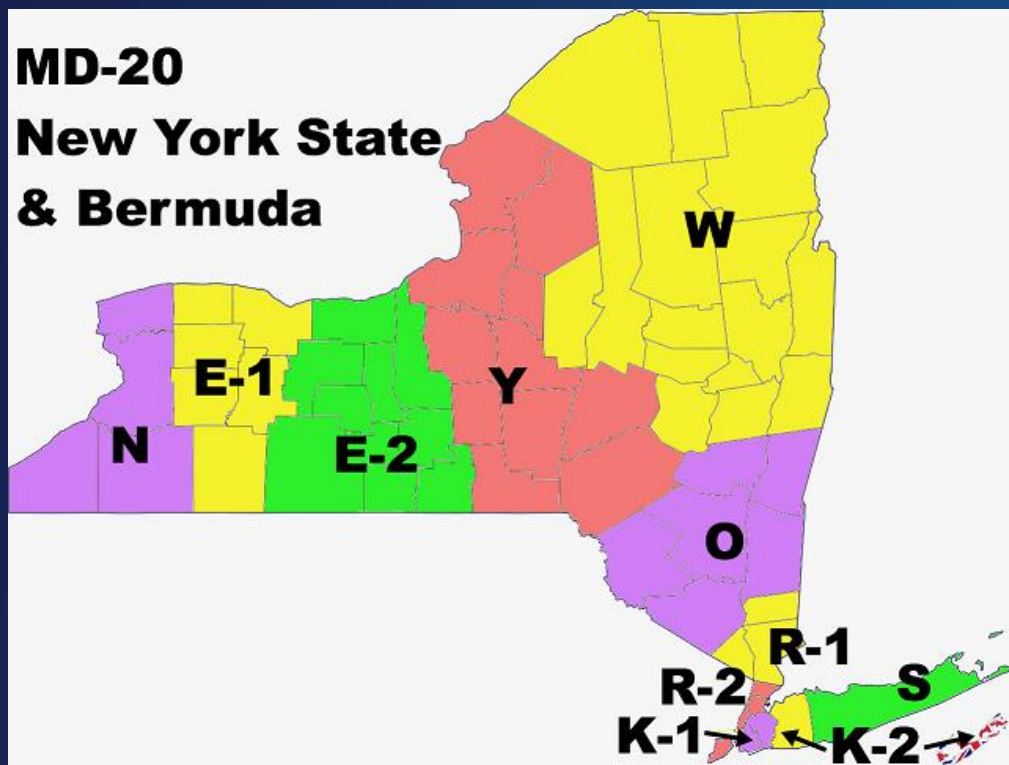
2018-19: RCSD 22: 150 students, all ages



Pediatric Auto refractor based Vision Screening Data in 2018-19 by NYS Lions

48,966 Screened and 15% (7233) referred to Eye Care

**MD-20
New York State
& Bermuda**



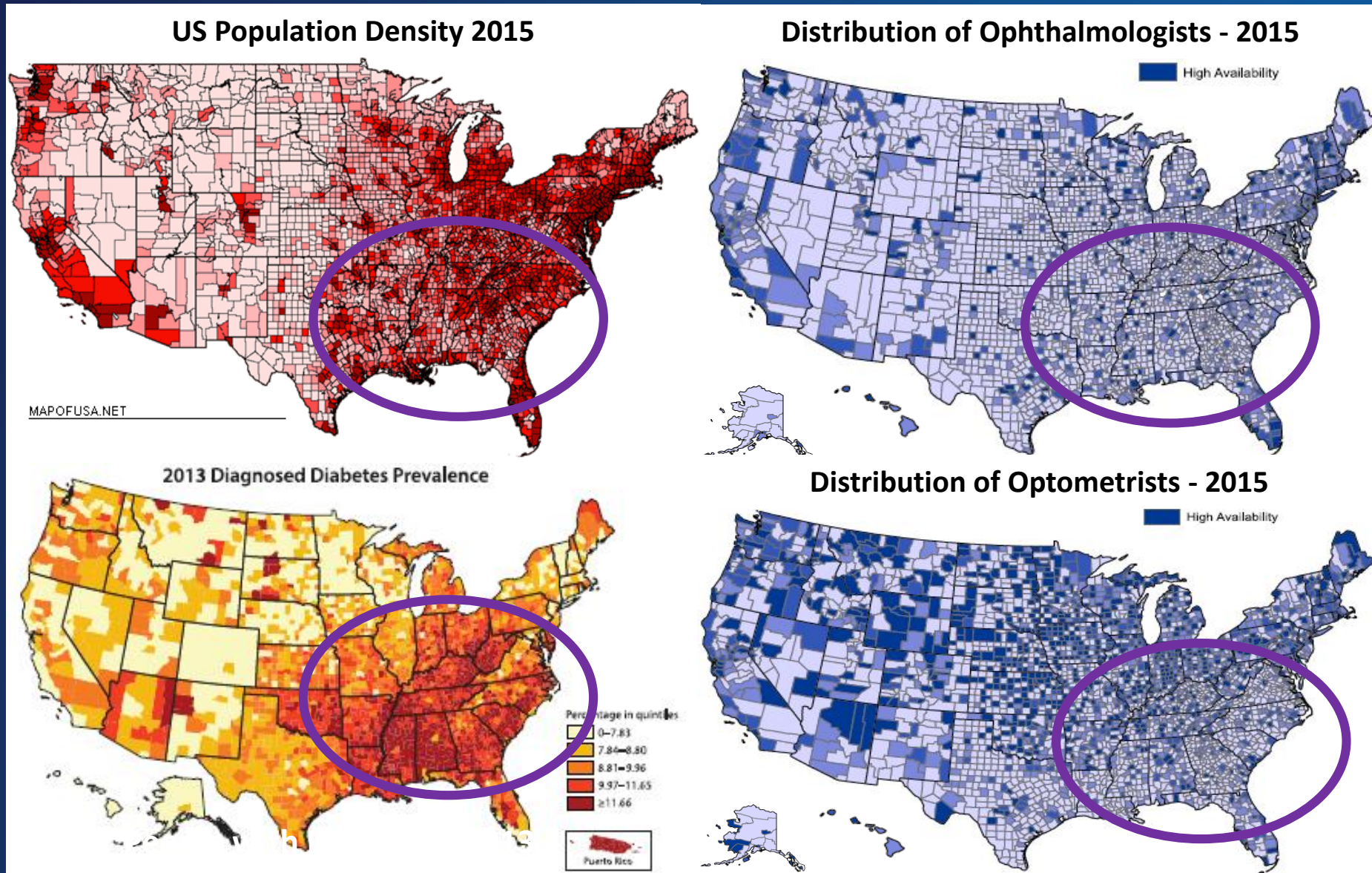
Usage Metrics by District for '2018-07-01' though '2019-06-12'

District	Screens	Refers	Refers as a % of Screens	Doc Visits	Visits as a % of Refers
District 20 E1	948	78	8.2%	0	0.0%
District 20 E2	5638	555	9.8%	0	0.0%
District 20 K1	482	115	23.9%	0	0.0%
District 20 K2	1243	195	15.7%	0	0.0%
District 20 N	23788	3737	15.7%	0	0.0%
District 20 O	6198	748	12.1%	1	0.1%
District 20 R1	593	119	20.1%	0	0.0%
District 20 R2	2123	549	25.9%	0	0.0%
District 20 S	2653	469	17.7%	13	2.8%
District 20 Y	5300	668	12.6%	0	0.0%

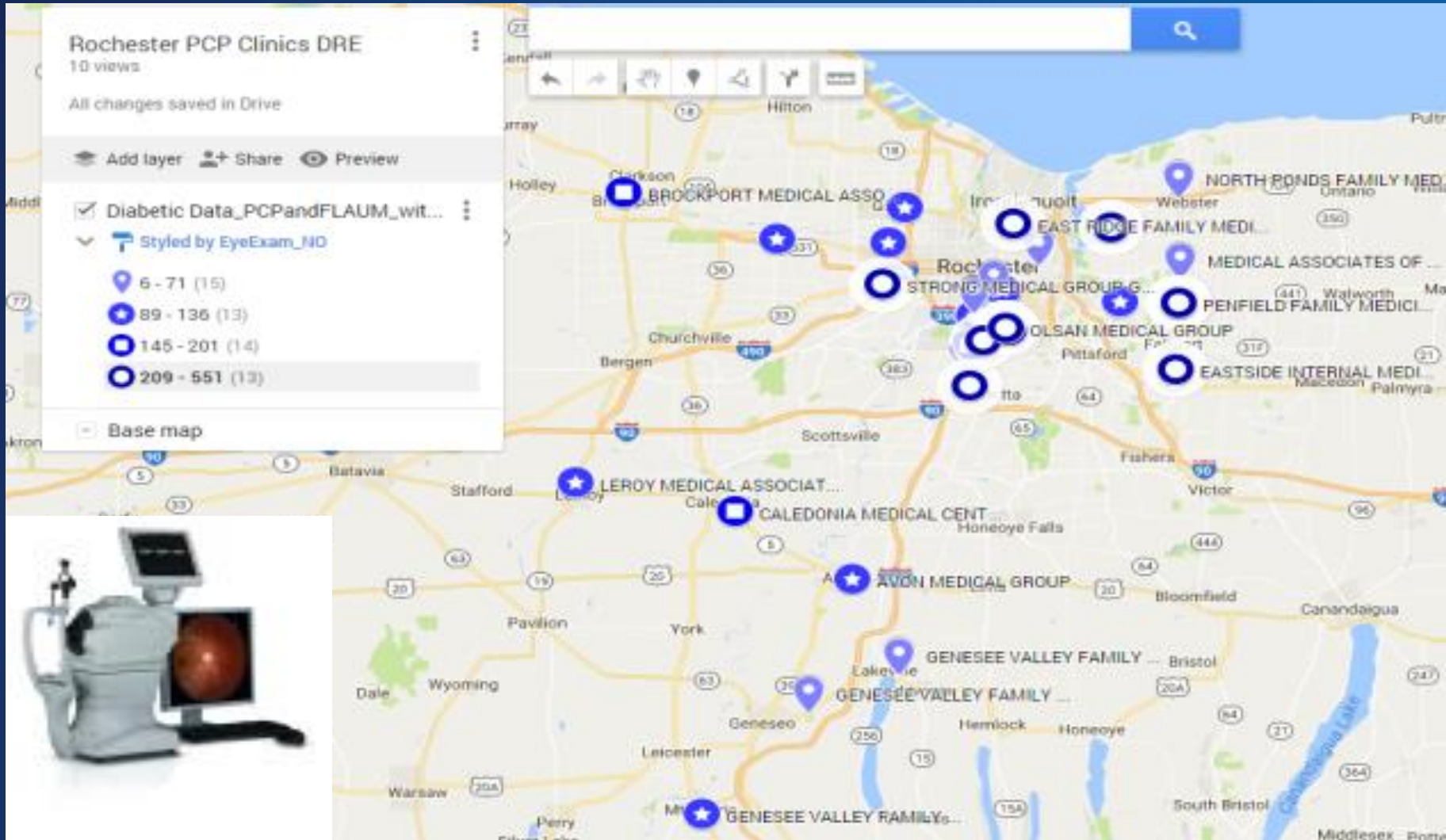
Total Refers as % of Screens: 14.77% and Total Visits as % of Refers: 0.19%

48966 7233 14

Population Health – Matching Demand and Supply (Diabetes)



In 2015 ~5,000 URMC Patients with Diabetes Needed HEDIS Specified Eye Exams



2019: Creating Dashboards to Track Patients Needing Eye Care



Tele-I-Care Program

Annual DM Eye Exam Rate
Medical Home dashboards in eRecord
(% of Patients with Diabetes Having an
Eye Exam per HEDIS Metric)

Before Tele-I-Care implementation July 16, 2018	May 2019	68% is the 90 th percentile
61%	68%	
33%	42%	
57%	67%	

	# of patients contacted in the gap as of May 30, 2019 (Epic)	
	# of patients in the gap	# of patients who have been notified they need a diabetic eye exam
Manhattan Sq	111	80
SIM	564	437
Culver Medical	146	123
Clinic Total	821	640

Retinopathy Detected in 28%

65% Documented Follow-up to Eye Care

Level of Retinopathy	Detected (%)	Following-up to Eye Care (%)
No Retinopathy	69%	61%
Mild NPDR	15%	70%
Moderate NDPR	10%	80%
Severe NDPR	2%	80%
Proliferative DR	1%	100%
Diabetic Macular Edema	8%	88%
Inadequate Photos	3%	46%

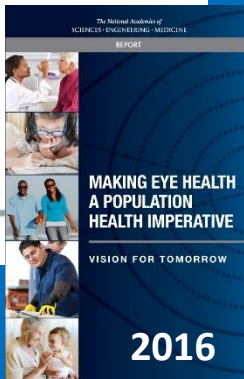
80% of those following-up did so per recommended time interval. Worse pathology & shorter follow-up time were associated with increased follow-up rate. (p<0.001)

Screening Results

	Non DR Pathology Detected
12%	<i>Cataract</i>
3%	<i>Glaucoma Suspect</i>
3%	<i>Drusen</i>
9%	<i>Other</i>
	Binocular Vision
72%	$\geq 20/20 - 20/40$
15%	$< 20/40 - > 20/70$
9%	$\leq 20/70$

National Academy of Sciences, Engineering, Medicine Population Eye and Vision Health Report

1. HHS - National Call to Action & Public Awareness Campaign on Importance of Vision Health tailored to Stakeholders
2. CDC – Develop a Coordinated Surveillance System
3. HHS – Develop a Common Research Agenda
4. Common Set of Standard Clinical Practice Guidelines for Eye Providers
5. Increase Access to Eye Care, including in Traditionally Non Eye Care Settings, & Workforce Training
6. Community, State, National Needs Assessment & Support for Vision Health
7. Develop Community Networks and Collaborative that Encourage Eye- and Vision-Healthy Environments



National Vision Eye Health Surveillance System

<https://www.cdc.gov/visionhealth/vehss/index.html>

- Examination-based population studies

- 5 Nat'l Surveys

 - Self-Reported Vision Data, Except 2008 NHANES

- Administrative Claims Records

- EMR Registries

 - AAO IRIS, AOA MORE

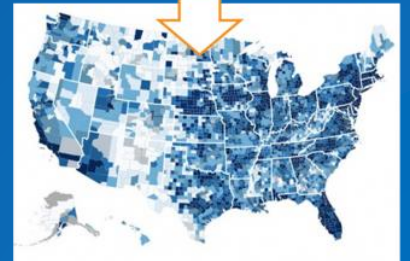
Examination-based studies

Claims Databases

Surveys

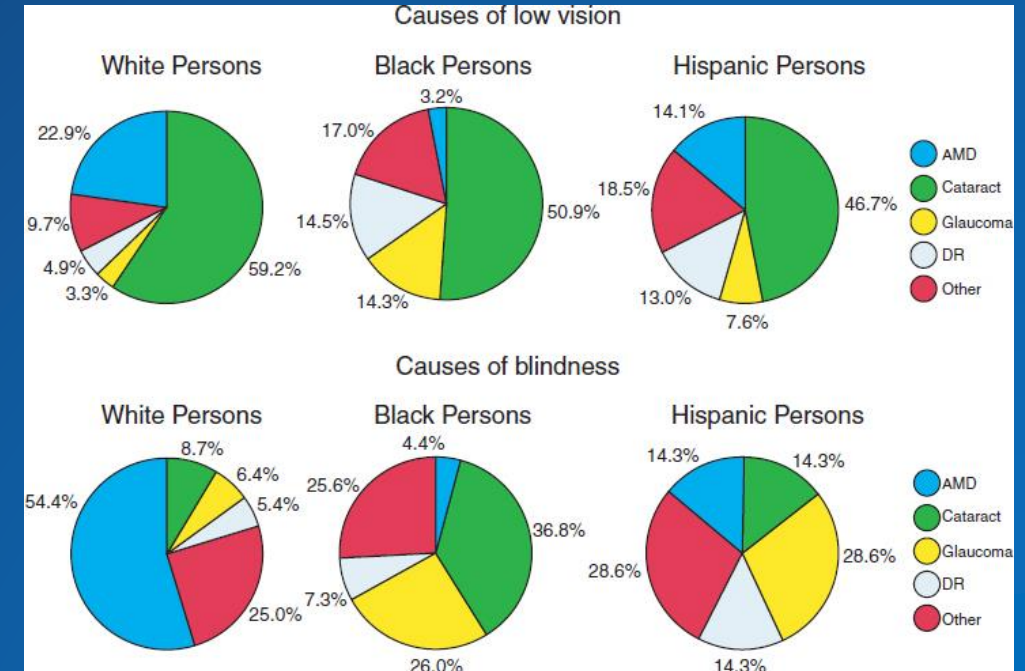
EHR Registries

Statistical Integration and Estimation Techniques



US Academic - Examination Based Population Studies

- Baltimore Eye Study
- Beaver Dam Eye Study,
- Salisbury Eye Evaluation
- Proyecto Ver Study
- Los Angeles Latino Eye Study
- Chinese American Eye Study



Foundation for Understanding
US Population Eye Health

16 Nationally Sampled Studies

1. American Community Survey
2. Behavioral Risk Factors Surveillance System
3. Health and Retirement Study
4. Longitudinal Supplement on Aging
5. Medicare Current Beneficiary Survey
6. Medical Expenditure Panel Survey
7. National Ambulatory Medical Care Survey
8. National Health Interview Survey
9. National Health and Nutrition Examination Survey
10. National Hospital Ambulatory Medical Care Survey
11. National Nursing Home Survey
12. National Social Life, Health, and Aging Project
13. National Survey of Child and Adolescent Well-Being
14. National Survey of Children's Health
15. National Survey of Children with Special Health Care Needs
16. Survey on Income and Program Participation



	ACS	BRFSS	HRS	LSoA	MCBS	MEPS	NAMCS	NHIS	NHANES	NHAMCS	NNHS	NSHAP	NSCAW	NSCH	NSC-SHCN	SIPP
Nationally Representative	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
State-Level Data	*	*						*						*	*	
Age	All	18+	50+	70+	65+	All	All	All	All*	All	18+	50+	Birth-14	< 18	< 18	All
Continued vision data collection expected	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Mode	M	P	P	M	I	I+ Phys	Phys.	I	I	Phys.	I	M	I	P	P	M
Rspndnt.	H	Ind.	H	Ind.	Ind.	H	Ind.	H	Ind.	Ind.	H	Ind.	C	C	C	H
Sample Size**	Over 3 million	506,000	9,600	9,500	40,000	35,100	76,300	87,500	14,300/9,800 (int./exam)	31-32,000 (respondent)	8,200	3,400	5,900	95,700	40,200	34,900
Response Rate **	97	25-60 (state)	89	69	84-95	53	32-59 (state)	80	71/69 (int./exam)	67-85 (respondent)	93	74	80/94 (respondent)	38/16/23 (frame)	44/15/26 (frame)	65
Primary Agency	Census	CDC	NIA	CDC/NIA	CMS	AHRQ	CDC	CDC	CDC	CDC	CDC	NIA	OPRE	MCHB	MCHB	Census

* Vision Module data is only available for a subsample of participants age 40 or older *More detailed health examination data is only available for respondents age 25-74

	ACS	BRFSS	HRS	LSoA	MCBS	MEPS	NAMCS	NHIS	NHANES	NHAMCS	NNHS	NSHAP	NSCAW	NSCH	NSC-SHCN	SIPP
Visual Functioning	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Impairment-ACS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Impairment -Other			*	*	*	*	*	*	*	*	*	*	*	*	*	*
Blind				*	*	*	*	*	*	*	*	*	*	*	*	*
Myopia		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Hyperopia		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Peripheral Vision				*	*	*	*	*	*	*	*	*	*	*	*	*
Light				*	*	*	*	*	*	*	*	*	*	*	*	*
Aids				*	*	*	*	*	*	*	*	*	*	*	*	*
Length of Problem				*	*	*	*	*	*	*	*	*	*	*	*	*
Life Impact				*	*	*	*	*	*	*	*	*	*	*	*	*
Eye Disease	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Cataracts	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Glaucoma	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Macular Degeneration	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Diabetic Retinopathy	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Examination Data			*						*			*				
Visual Acuity			*						*			*				
Contrast Sensitivity			*						*			*				
Cost and Utilization	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Insurance	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Utilization	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Costs	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Income	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

5 Nationally Sampled Studies in VEHS

1. American Community Survey
2. Behavioral Risk Factors Surveillance System
3. Health and Retirement Study
4. Longitudinal Supplement on Aging
5. Medicare Current Beneficiary Survey
6. Medical Expenditure Panel Survey
7. National Ambulatory Medical Care Survey
8. National Health Interview Survey
9. National Health and Nutrition Examination Survey
10. National Hospital Ambulatory Medical Care Survey
11. National Nursing Home Survey
12. National Social Life, Health, and Aging Project
13. National Survey of Child and Adolescent Well-Being
14. National Survey of Children's Health
15. National Survey of Children with Special Health Care Needs
16. Survey on Income and Program Participation

	ACS	BRFSS	HRS	LSoA	MCBS	MEPS	NAMCS	NHIS	NHANES	NHAMCS	NNHS	NSHAP	NSCAW	NSCH	NSC-SHCN	SIPP
Nationally Representative	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
State-Level Data	*	*						*						*	*	
Age	All	18+	50+	70+	65+	All	All	All	All*	All	18+	50+	Birth-14	< 18	< 18	All
Continued vision data collection expected	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Mode	P = Phone I = In-Person M = Multi-Mode Phys. = Physician	P	P	M	I	I+Phys	Phys.	I	I	Phys.	I	M	I	P	P	M
Rspndnt.	H = Household Ind. = Individual C = Caregiver	H	Ind.	H	Ind.	Ind.	H	Ind.	H	Ind.	H	Ind.	C	C	C	H
Sample Size**	Over 3 million	506,000	9,600	9,500	40,000	35,100	76,300	87,500	14,300/ 9,800 (int./exam)	31-32,000 (respondent)	8,200	3,400	5,900	95,700	40,200	34,900
Response Rate **	97	25-60 (state)	89	69	84-95	53	32-59 (state)	80	71/69 (int./exam)	67-85 (respondent)	93	74	80/94 (respondent)	38/16/23 (frame)	44/15/26 (frame)	65
Primary Agency	Census	CDC	NIA	CDC/ NIA	CMS	AHRQ	CDC	CDC	CDC	CDC	CDC	NIA	OPRE	MCHB	MCHB	Census

* Vision Module data is only available for a subsample of participants age 40 or older ** More detailed health examination data is only available for respondents age 25-74

	ACS	BRFSS	HRS	LSoA	MCBS	MEPS	NAMCS	NHIS	NHANES	NHAMCS	NNHS	NSHAP	NSCAW	NSCH	NSC-SHCN	SIPP
Visual Functioning	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Impairment-ACS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Impairment -Other			*	*	*	*	*	*	*	*	*	*	*	*	*	*
Blind			*	*	*	*	*	*	*	*	*	*	*	*	*	*
Myopia		*			*	*	*	*	*	*	*	*	*	*	*	*
Hyperopia		*			*	*	*	*	*	*	*	*	*	*	*	*
Peripheral Vision					*	*	*	*	*	*	*	*	*	*	*	*
Light					*	*	*	*	*	*	*	*	*	*	*	*
Aids				*	*	*	*	*	*	*	*	*	*	*	*	*
Length of Problem					*	*	*	*	*	*	*	*	*	*	*	*
Life Impact					*	*	*	*	*	*	*	*	*	*	*	*
Eye Disease	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Cataracts	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Glaucoma	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Macular Degeneration	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Diabetic Retinopathy	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Examination Data												*				
Visual Acuity												*				
Contrast Sensitivity												*				
Cost and Utilization	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Insurance	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Utilization	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Costs	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Income	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Self Reported Vision Issues

American Community Survey

Is this person blind or does he/she have serious difficulty seeing even when wearing glasses?

Behavioral Risk Factors Surveillance System

Are you blind or do you have serious difficulty seeing, even when wearing glasses?
(Census Tract/State Level info)

National Health Interview Survey

1. Blind or unable to see at all?
2. Wear glasses?
3. Have any trouble seeing, even when wearing glasses or contact lenses?

National Survey of Children's Health

Has a doctor or other health care provider ever told you that [CHILD] had vision problems that cannot be corrected with glasses or contact lenses?

National Health and Nutrition Examination Survey (2008, 5,000/yr)

Indicator Topic	VEHSS Indicator Category	NHANES Variable Name	Years Available (Analyzed)	Question	Response Options
Visual Function	Blind or Difficulty Seeing	VIQ017	2005–2008 (2005–2008)	Are you/Is survey participant blind in both eyes?	•1 Yes •2 No
Service Utilization	Cataract Surgery	VIQ071	1999–2008 (2005–2008)	Have you/Has survey participant ever had a cataract operation?	•1 Yes •2 No
Eye Health Conditions	Self-report glaucoma	VIQ090	2005–2008 (2005–2008)	Have you/Has survey participant ever been told by an eye doctor that {you have/s/he has} glaucoma (gla-co-ma), sometimes called high pressure in {your/his/her} eyes?	•1 Yes •2 No
Eye Health Conditions	Self-report age-related macular degeneration	VIQ310	2005–2008 (2005–2008)	Have you/Has survey participant ever been told by an eye doctor that {you have/s/he has} age-related macular (mac-ular) degeneration?	•1 Yes •2 No
Eye Health Conditions	Self-report diabetic retinopathy	DIQ080	2005–2008 (2005–2008)	Has a doctor ever told you/survey participant that diabetes has affected {your/his/her} eyes or that {you/s/he} had retinopathy (ret-in-op-ath-ee)?	•1 Yes •2 No

VEHSS Indicator Topic	VEHSS Indicator Category	NHANES Variables Used	Years Available (Analyzed)
Eye Health Conditions	Exam-based glaucoma	OPASCST2 – Exam status; OPXDGLAU – Glaucoma, right eye; OPXSGLAU – Glaucoma, left eye	2005–2008 (2005–2008)
Eye Health Conditions	Exam-based age related macular degeneration	OPDUARMA – Any retinopathy, worse eye	2005–2008 (2005–2008)
Eye Health Conditions	Exam-based diabetic retinopathy	DIQ010 – Doctor told you have diabetes; LBXGH – Glycohemoglobin (%); OPDURET – Retinopathy level, worse eye	2005–2008 (2005–2008)
Visual Acuity Measures	Presenting Visual Acuity	VIDRVA – Right visual acuity, presenting; VIDLVA – Left visual acuity, presenting	1999–2008 (1999–2008)
Visual Acuity Measures	Best-corrected Visual Acuity	VIDROVA – Right visual acuity, w/ obj. refraction; VIDLOVA – Left visual acuity, w/ obj. refraction	1999–2008 (1999–2008)
Visual Acuity Measures	Uncorrected Refractive Error	Presenting visual acuity $\leq 20/50$ Best-corrected visual acuity $< 20/40$ with refraction	1999–2008 (1999–2008)

	<u>Medicare</u>	<u>Medicaid</u>	<u>MarketScan</u>	<u>VSP</u>	<u>Military Health System</u>
Nationally Representative	Partial	No	No	No	No
Geographic Representation					
State Representation	Yes	Yes	Partial	Yes	Partial
County Representation	Yes	Yes	Partial	Partial	Partial
Patient Groups					
Age 0-65	Partial	Yes	Yes	Yes	Yes
Age 65+	Yes	Partial	Partial	Yes	Partial
Undiagnosed Patients	No	No	No	No	No
Uninsured Patients	No	No	No	Partial	No
Care Type and Setting					
Vision Services	No	Partial	No	Yes	Yes
Eye Care	Yes	Yes	Yes	Partial	Yes
Other Medical	Yes	Yes	Yes	No	Yes
Conditions					
All Medical Diagnoses	Yes	Yes	Yes	No	Yes
Risk Factors	Yes	Yes	Yes	Partial	Yes
Uncorrected Acuity	No	No	No	No	Partial
Corrected Acuity	No	No	No	Partial	Partial

Claims Based Data Already Eye Care Patients

Limited to what and who insurance covers

IRIS®-AAO MORE-AOA

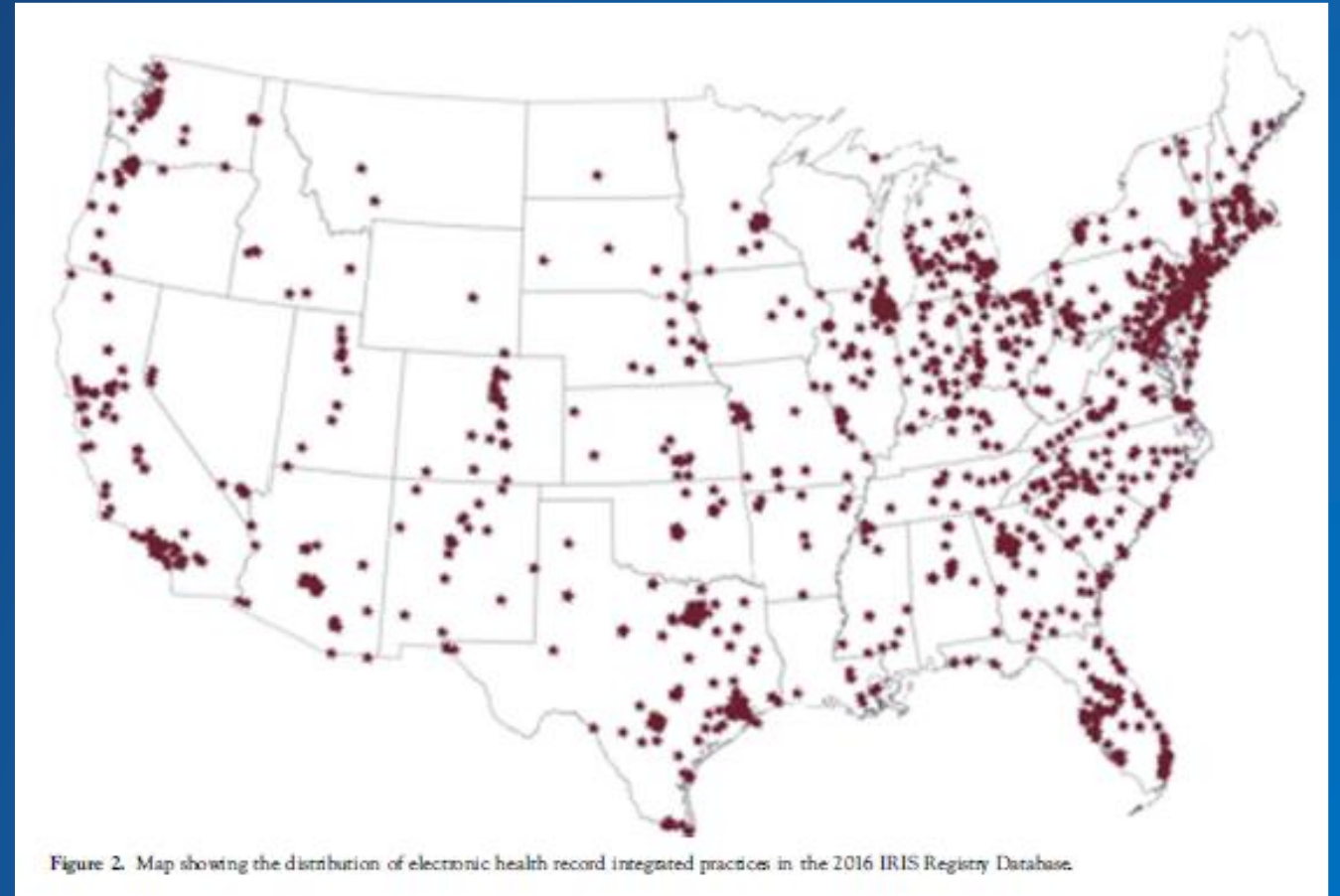
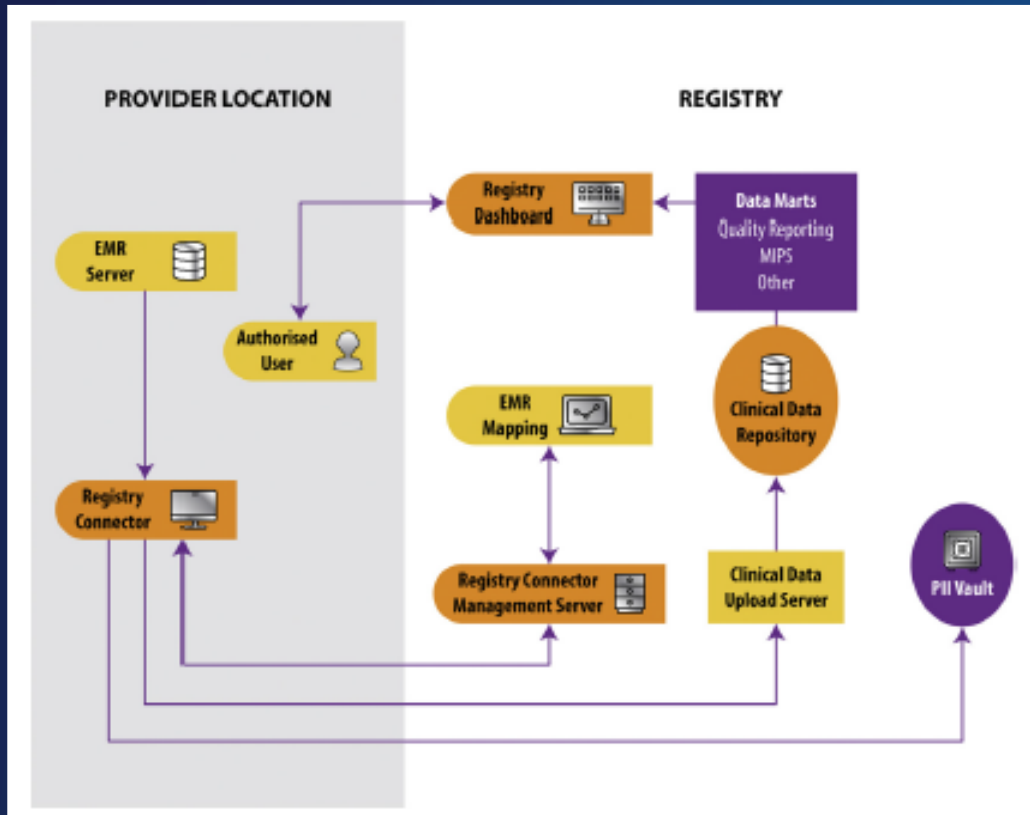
Nationally Representative	No	No
Demographics		
Age/Sex/Race	Yes	Yes
Geographic Representation		
State Representation	Partial	Partial
County Representation	Partial	Partial
Patient Groups		
All Ages	Yes	Yes
Undiagnosed	No	No
Payer Type		
Private Medical	Yes	Yes
Private Vision	Yes	Yes
Medicare	Yes	Yes
Medicaid	Yes	Yes
Other Government Payers	Partial	Partial
Uninsured	Partial	Partial

IRIS®-AAO MORE-AOA

Care Type and Setting		
Vision Services	Partial	Yes
Medical Eye Care	Yes	Partial
Other Medical	Partial	Partial
Conditions		
All Medical Diagnoses	No	No
Risk Factors	Partial	Partial
Uncorrected Acuity	Yes	Yes
Corrected Acuity	Yes	Yes

EMR Registry Based Data – Only IRIS® is being currently used by NVEHSS
Already Eye Care Patients

Intelligent Research in Sight IRIS®



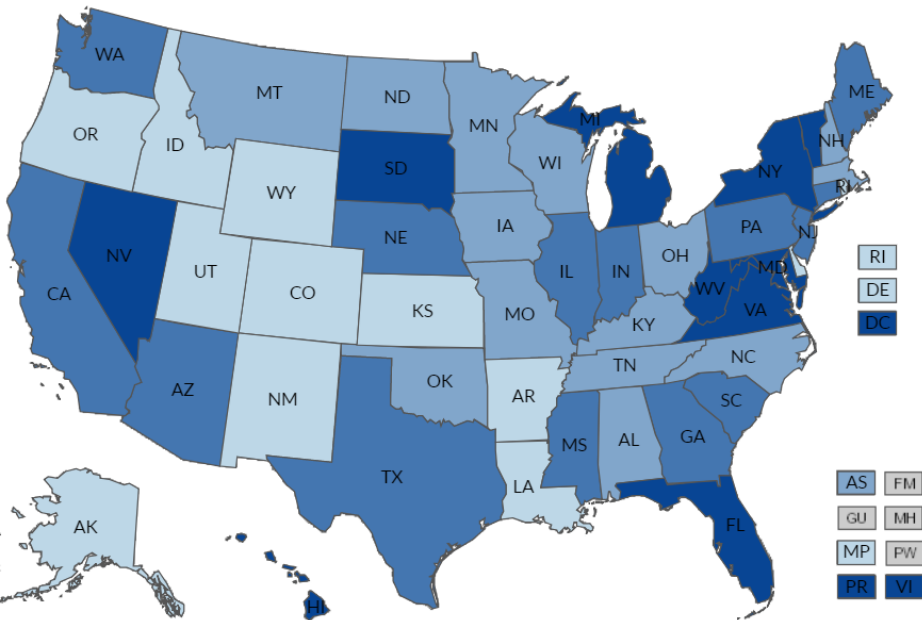
NVEHSS: State Based Prevalence

Glaucoma EMR Data – IRIS Registry 18.74%

AMD (Treated) Medicare Claims – 7.7% Claims

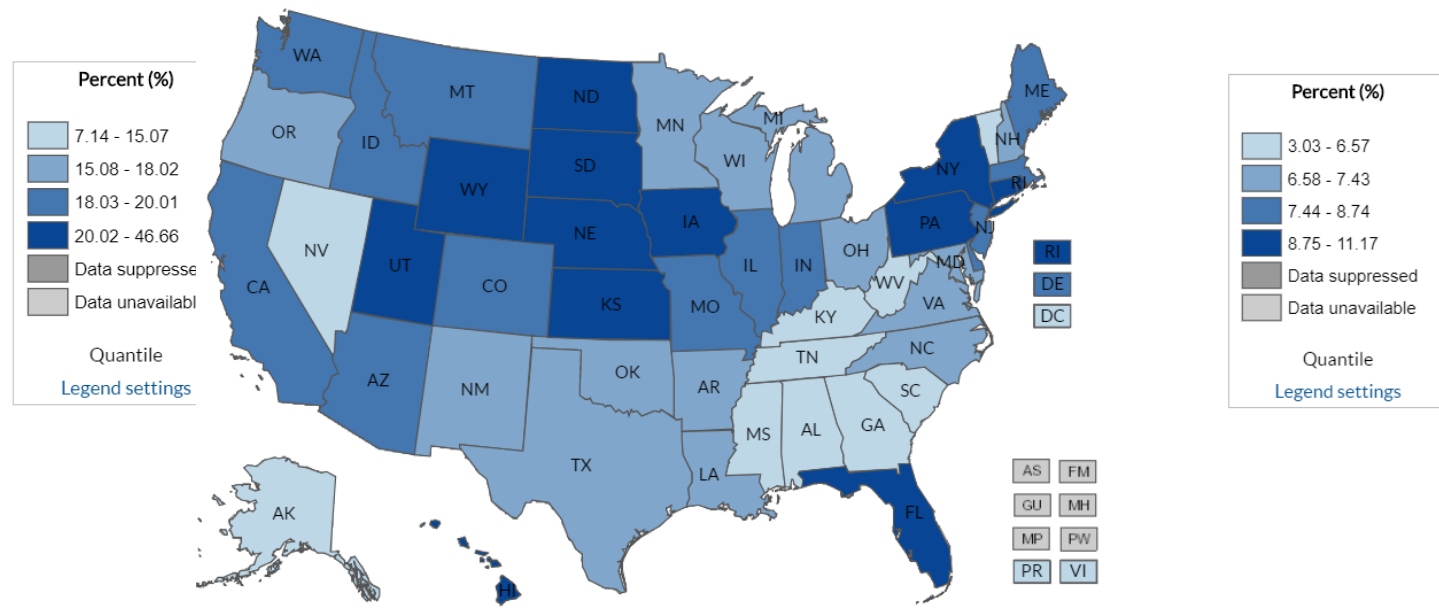
2016 IRIS® Registry
Annual prevalence of diagnosed glaucoma:
All Glaucoma
 Age Group: All Ages; Gender: Total; Race/Ethnicity: All races
 Risk Factor: All patients; Risk Factor Response: Total
 Data Type: Crude Prevalence

National : 18.74%
 95% CI (18.72 - 18.76)



2015 Medicare Claims
Annual prevalence of treated age related macular degeneration:
All Age-related macular degeneration (AMD)
 Age Group: All Ages; Gender: Total; Race/Ethnicity: All races
 Risk Factor: All patients; Risk Factor Response: Total
 Data Type: Crude Prevalence

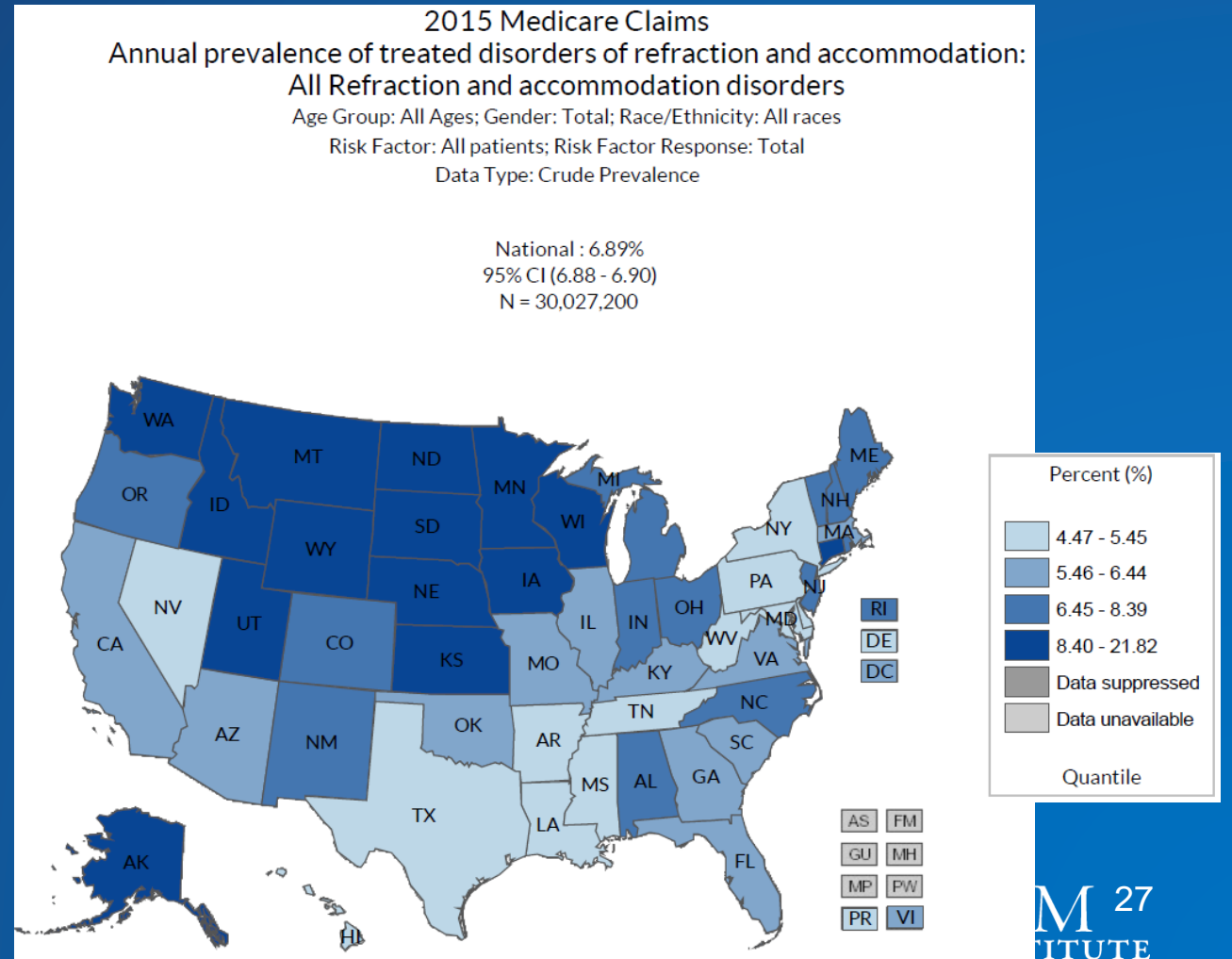
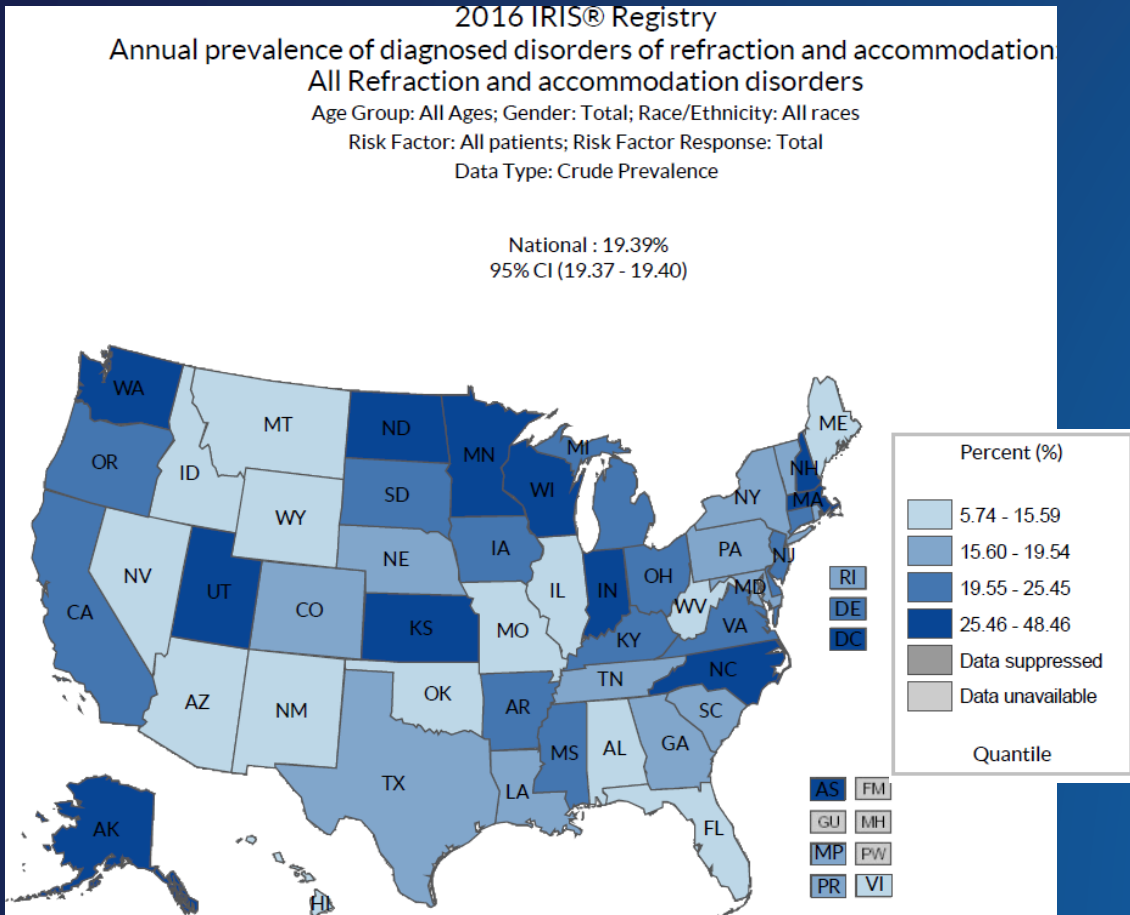
National : 7.70%
 95% CI (7.69 - 7.71)
 N = 30,027,200



NVEHSS: State Based Prevalence

Refractive Error— IRIS Registry 19.39%

Refractive Error— Medicare Claims 6.89%

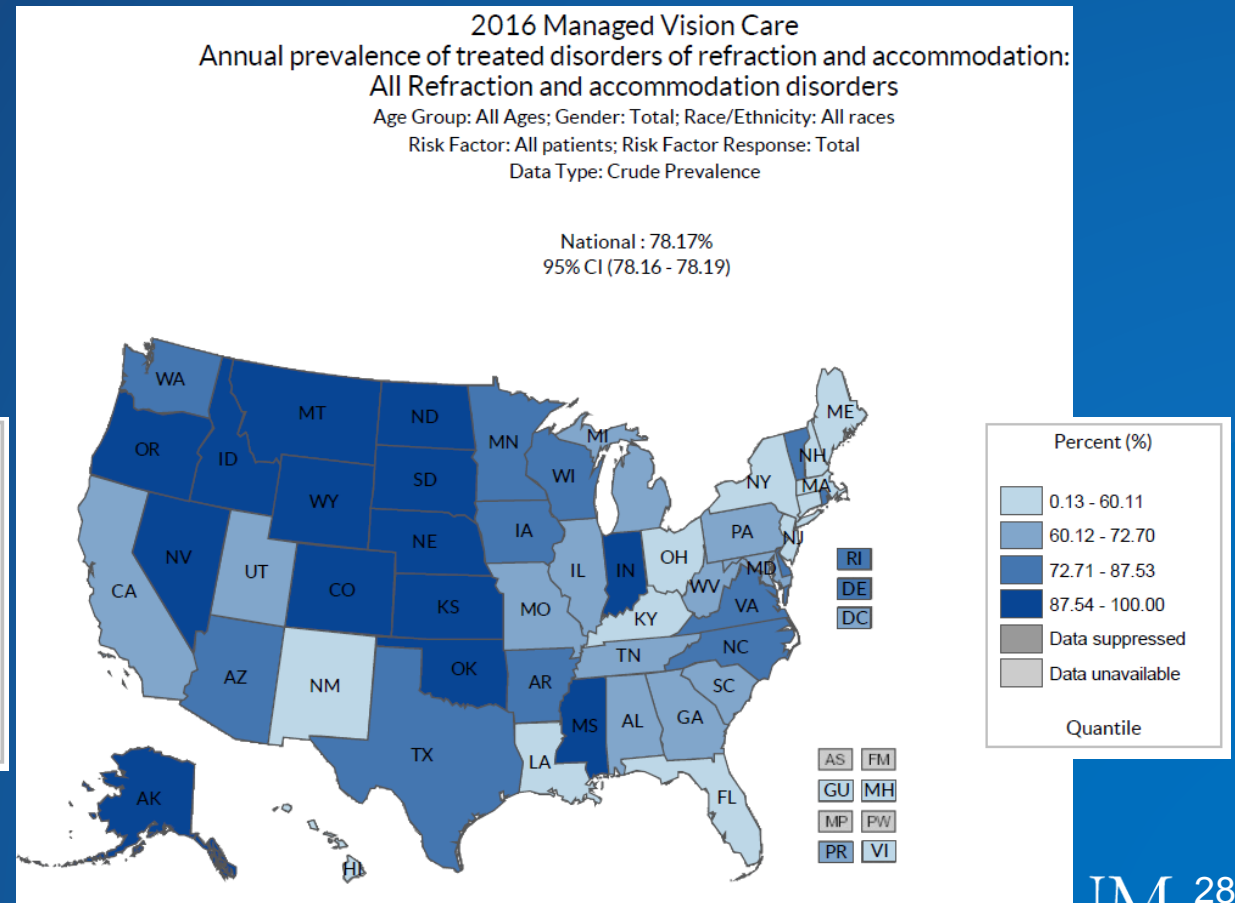
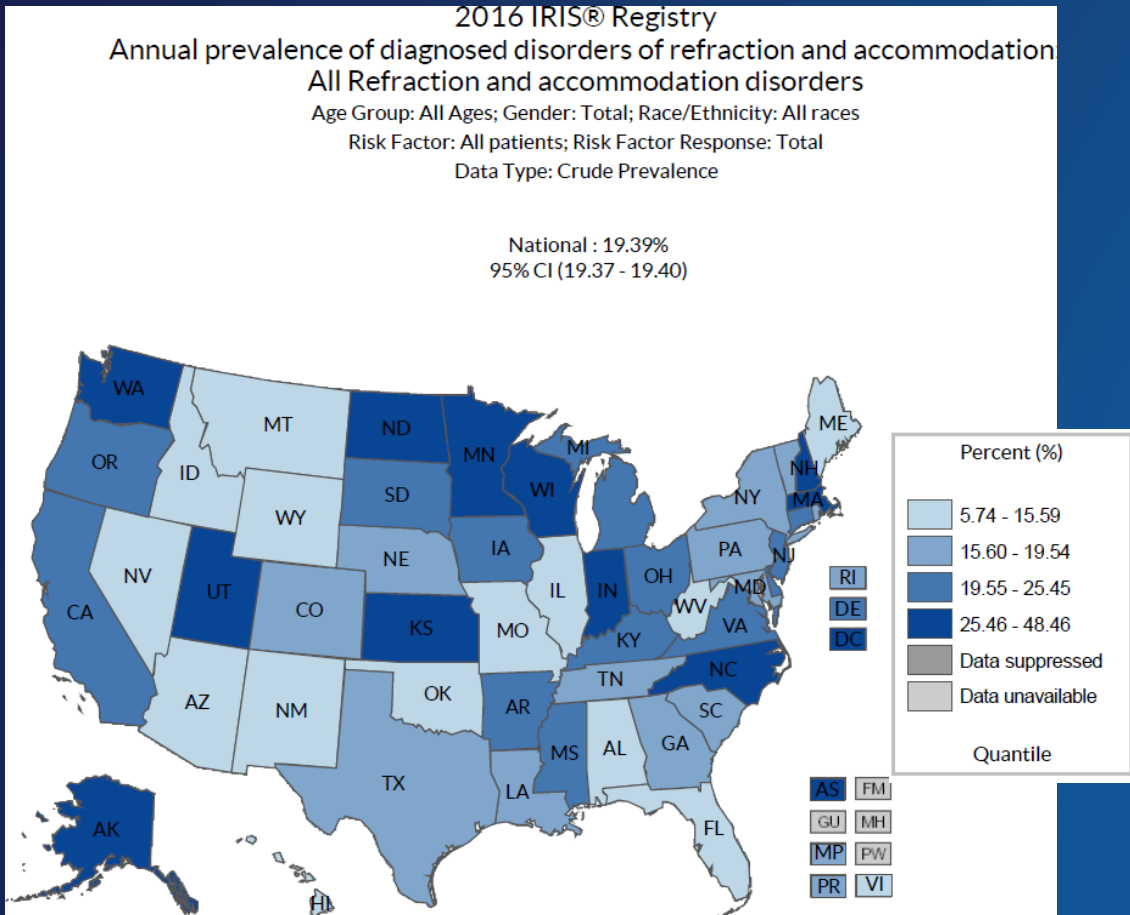


<https://www.cdc.gov/visionhealth/vehss/index.html>

NVEHSS: State Based Prevalence

Refractive Error– IRIS Registry 19.39%

Refractive Error– VSP Claims 78.17%

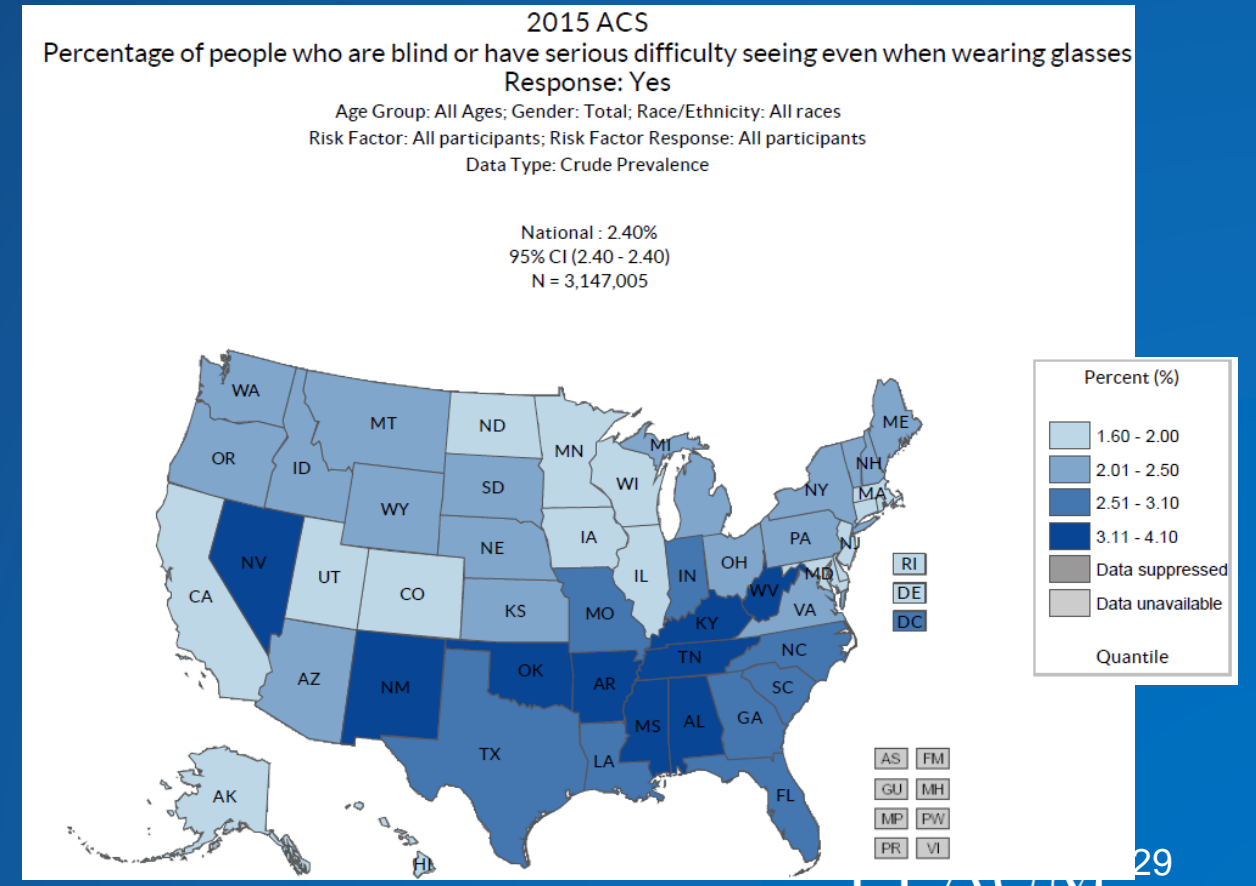
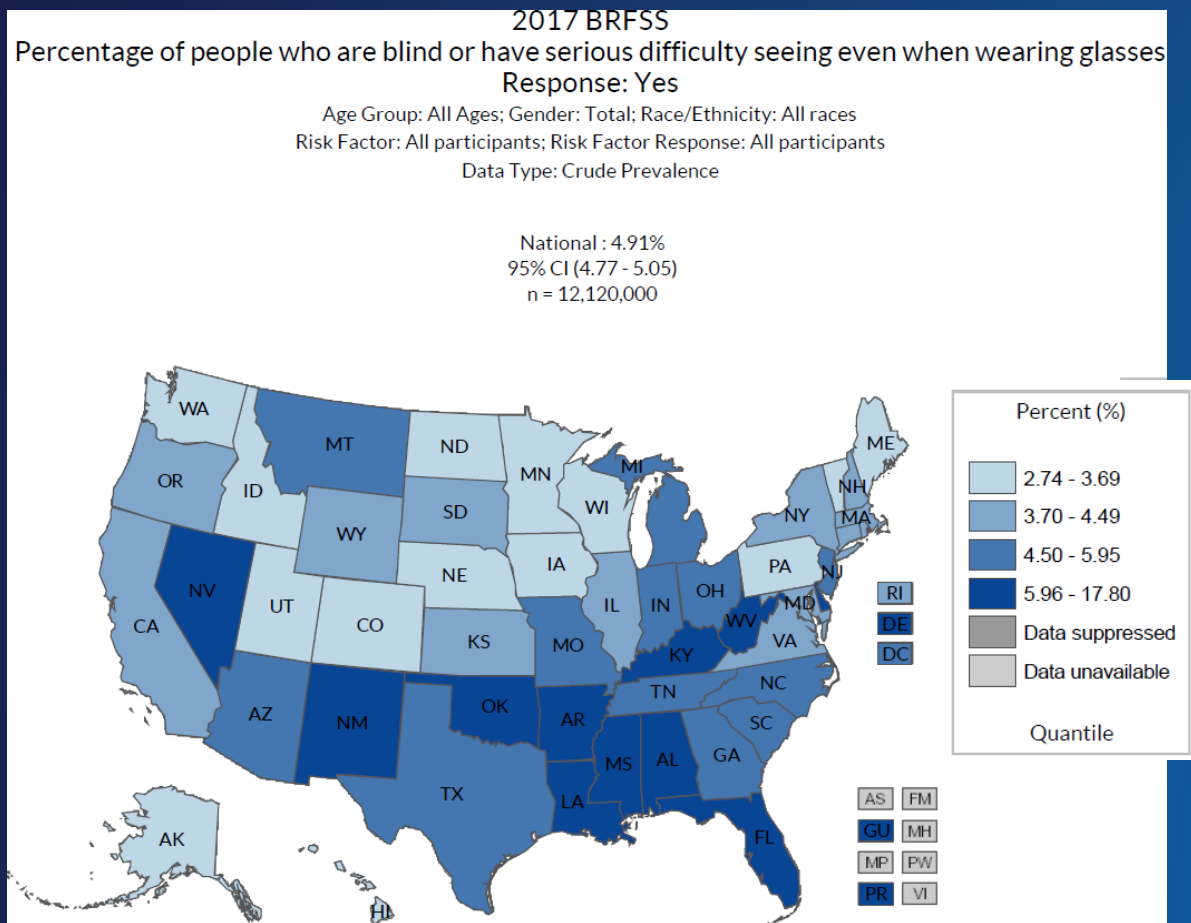


<https://www.cdc.gov/visionhealth/vehss/index.html>

NVEHSS: State Based Prevalence

Vision Difficulty – BRFSS 4.91%

Vision Difficulty – ACS 2.4%



Summary of Some Data Sources for Population Health

1. Examination Based Population Studies
2. Nationally Sampled Surveys – usually self-report
3. Administrative Claims Data – limited to insured patients
4. EMR Registries – eye care patients
5. Local Eye Care Surveillance Data – Screenings/Telemedicine/Public Health Outreach

Meeting with U.S. Surgeon General – June 13, 2019



American Academy of Ophthalmology, American Academy of Optometry, American Optometric Association, The Association for Research in Vision and Ophthalmology, Brien Holden Vision Institute, Casey Eye Institute, Dana Center for Preventive Ophthalmology, Dean McGee Eye Institute, Eye Bank Association of America, Himalayan Cataract Project, Hellen Keller International, Illinois College of Optometry, International Agency for the Prevention of Blindness- North America Region, International Eye Foundation, Lighthouse Guild, Lions Clubs International, National Alliance for Eye and Vision Research, Orbis International, Prevent Blindness, SEE International, SEVA Foundation, University of Utah- John A. Moran Eye Center, University of Rochester Medical Center, Vision Impact Institute, and Volunteer Optometric Services to Humanity International.



Mitchell V. Brinks, M.D., M.P.H., OHSU & chair of Vision 2020/USA & Jerome Adams, MD, MPH, along with Prevent Blindness America

- **Call to Action: Science-based summary document to stimulate action:**
 - **Increase Public Awareness**
 - **Improve Surveillance**
 - **Clarify Disability & Financial Cost**
 - **Standardize Public Health & Practice**

Follow [@VISION2020USA](#) to stay up to date on the [#V2020CallToAction](#) to the [@Surgeon_General](#) to improve vision and eye health by 2020



Like [@VISION2020USA](#) on Facebook to stay up to date on the [#CallToAction](#) for the U.S. Surgeon General to improve vision and eye health [#V2020CallToAction](#)





U.S. Surgeon General ✓

@Surgeon_General

Follow



Just had a great meeting w/[@Vision2020USA](#) to discuss the importance of quality eye health & vision care for everyone. [#DYK](#) vision disability is one of the top 10 disabilities among adults 18 years & older? Its also one of the most disabling conditions among children [#VisionHealth](#)



https://twitter.com/PBA_savingsight/status/1139212993085022209

<https://www.preventblindness.org/eye-summit-2020>



Focus On Eye Health National Summit

July 17, 2019 –
National Press Club,
Washington, DC

Date: July 15, 2020

Location: National Press Club, Washington, D.C.

SAVE THE DATE!

On Wednesday, July 15th, 2020, Prevent Blindness will host the 9th Annual
Focus on Eye Health National Summit at the National Press Club in Washington, DC.