

2016 IRIS® Registry Summary Data Report

For the Vision & Eye Health Surveillance System

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DISCLAIMER: The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of NORC at the University of Chicago or the Centers for Disease Control and Prevention.

This report is currently undergoing Section 508 compliance review.

Dataset Description

Compiled by the American Academy of Ophthalmology (AAO), IRIS® Registry (Intelligent Research In Sight) is the nation's first comprehensive eye disease clinical registry. The IRIS® Registry enables ophthalmologists to use clinical data to improve care delivery and patient outcomes and help practices meet requirements of the federal Physician Quality Reporting System (PQRS). The IRIS® Registry uses HIPAA-compliant methods to collect data from patient records directly from practices' individual EMR systems. These EMR systems periodically report health record data based on the IRIS® Registry data fields on a nightly or weekly basis. The system tracks diagnosed disorders based on ICD-9/ICD-10 codes and also includes procedures and visual acuity measures and other clinical data documented in the medical record. In 2016 there were 2,888 practices with a total of 11,374 ophthalmologists, optometrists, and other providers contracted with the IRIS® Registry.

IRIS® Registry coverage began in 2013, but sample size has increased over time. As of 2016, IRIS® Registry contained more than 24.19 million patients and 88 million encounters. The IRIS® Registry collects data from a convenience sample of more than 50% of ophthalmologists nationally.

The main advantages of IRIS® Registry are its wide coverage and availability of diagnostic test results such as acuity values. However, IRIS® Registry is also a new data system and has not been externally evaluated for data completeness, reliability, or validity. The IRIS® Registry team has provided summary level frequencies and prevalence values to the VEHSS system and has not granted access to person level data. This limits the ability of the VEHSS team to assess the quality of IRIS® Registry data.

Analysis Overview

We analyzed IRIS® Registry data to estimate the annual prevalence rate of treated diagnoses, the rate of clinical procedures, and the prevalence rate of visual acuity values when reported, as observed over a single year of observations in the 2016 IRIS® Registry data. Under subcontract to NORC, AAO analyzed the 2016 IRIS® Registry and supplied reports of frequencies and rates, summarized by state and by age group, race/ethnicity, sex, and insurer. A detailed description of the analytical steps is described in the report “VEHSS Claims & Registry Analysis Plan”.

Data Indicators and Case Definitions

IRIS® estimates include data indicators representing three topics of the overall VEHSS project;

- Vision Exam Measures– Best-corrected acuity measures
- Medical Diagnoses – Medical conditions defined by ICD-10 code and classified into 17 main categories and 79 subgroups, as described in the report VEHSS ‘ICD9 and ICD10 Diagnosis Categories Report’
- Service Utilization – Medical procedures and encounters as defined by CPT code and service date were reported by AAO, but are not included in our initial analyses nor this report because of the lack of a suitable denominator

Vision Exam Measures

Vision exam measures currently include best-corrected visual acuity. In our initial analyses, acuity is defined categorically and patients are divided into 8 subgroups based on acuity values contained in the IRIS® data (Table 1).

Table 1. Visual Function Topic Variables

Category	Subgroup
Best-corrected Visual acuity	Normal vision
	Any vision loss ($\leq 20/32$ in better eye)
	Mild visual impairment (20/32 - 20/63 in better eye)
	Moderate visual impairment (20/70 - 20/160 in better eye)
	US blind ($\leq 20/200$ in better eye)
	WHO blind ($\leq 20/400$ in better eye)
	Monocular vision loss ($\leq 20/70$ in one eye with normal vision in the other)
	Missing acuity (patient has no valid acuity measure)

Acuity measures are based on each patient's last visual acuity observation in 2016, using their best-corrected acuity in the better-seeing eye. The prevalence rate of patients who exhibit moderate impairment in one eye with normal vision in the other are reported as having monocular vision loss.

Approximately 16% of IRIS® Registry's current patients have no acuity values. It is unclear whether these missing values result from lack of measurement by the practice, data quality issues, or both. We anticipate that completeness of the patient acuity measures will increase over time. Additionally, IRIS® Registry does not currently have a high proportion of presenting visual acuity, uncorrected acuity or other visual measures. AAO suggests that the recording and reporting to IRIS® Registry of such vision values was still subject to uncertainty, but that coverage was expected to improve over time. We will continue to investigate the option of including such measures in future analyses.

Medical Diagnoses Topic

Medical Diagnoses are reported based on the VEHSS-defined medical diagnosis categorization structure. As reported in detail in the VEHSS Medical Diagnosis Categorization Report, we identified all eye and vision related ICD10 diagnosis codes, and organized them into a 2-level categorization structure, including 17 Categories and 79 Subgroups, as listed in Table 2.

Table 2. Medical Diagnosis Categories

Category	Subgroup
Retinal Detachment and Defects	
Diabetic Eye Diseases	
	Early/mild diabetic retinopathy
	Moderate /severe non-proliferative diabetic retinopathy
	Proliferative diabetic retinopathy
	Diabetic macular edema (dme, csme)
	Other/unspecified diabetes related eye conditions
Age related macular degeneration (AMD)	
	AMD, unspecified
	Early AMD
	Dry-form AMD
	GA, modifier for Dry-form
	Wet-form AMD
	CNV, modifier for Wet-form
Other Retinal Disorders	
	Retina vascular disease, occlusive (arterial, venous)
	Central retinal vein occlusion
	Branch retinal vein occlusion
	Central retinal arterial occlusion
	Branch retinal artery occlusion
	Retina vascular disease, non-occlusive
	Macular edema (if not diabetic)
	Hereditary chorioretinal dystrophy

Category	Subgroup
	Myopic degeneration
	Other/unspecified retinal disorders
Glaucoma	
	Open-angle glaucoma
	Primary open-angle glaucoma
	Low-tension glaucoma
	Glaucoma suspect
	Primary angle-closure glaucoma
	Narrow-angle glaucoma
	Congenital glaucoma
	Neovascular glaucoma
	Other/unspecified glaucoma
Cataracts	
	Senile cataract
	Non-congenital cataract
	Congenital cataract
	Posterior capsular opacity
	Pseudophakia
	Aphakia and other disorders of lens
Disorders of Refraction and accommodation	
	Myopia
	Hypermetropia
	Astigmatism
	Presbyopia
	Other disorder of refraction and accomodation
Blindness and low vision	
	Unqualified visual loss, both eyes
	Unqualified vision loss in one eye, or unspecified visual loss
	Vision impairment one eye
	Moderate or severe vision impairment better eye; profound vision impairment of lesser eye
	Moderate or severe vision impairment both eyes
	Profound vision impairment, bilateral, or legal blindness
Strabismus and amblyopia	
	Strabismus
	Amblyopia
Injury, burns and surgical complications of the eye	
	Injury
	Burn
	Surgical complication
Disorders of optic nerve and visual pathways	
	Optic nerve disorders
	Visual pathway disorders
Other visual disturbances	
	Visual field defect
	Color blindness
	Night blindness

Category	Subgroup
	Other/unspecified visual disturbances
Infectious and Inflammatory diseases	
	Infectious diseases
	Keratitis
	Conjunctivitis
	Eyelid infection and inflammation
	Other inflammatory conditions
	Lacrimal system and orbit inflammation
	Endophthalmitis
Orbital and external disease	
	Congenital anomalies
	Other/unspecified orbital or external disease
	Lacrimal diseases
	Eyelid disorders
	Dry eye syndrome
	Disorders of the globe
Cancer and neoplasms of the eye	
	Malignant neoplasm of the eye
	Benign neoplasm of the eye
Cornea disorders	
	Keratoconus
	Endothelial dystrophy (inc Fuchs)
	Other corneal disorders
Other eye disorders	

Medical Diagnoses represent the prevalence of diagnosed eye diseases based on the defined categories and subgroups. Full details of the analysis approach are available in the “VEHSS Claims and Registry Analysis Plan”, and were based on the methodology of the CMS Chronic Conditions Warehouse and supported by a literature review. In brief, the approach is as follows.

- Patients are assigned to a diagnosis subgroup if their IRIS® Registry EMR indicates the presence of an ICD10 diagnosis code specified for inclusion.
- Only one instance of a code was required to classify the patient to a subgroup.
- Subgroups are mapped to diagnosis categories.
- Patients may be included in multiple subgroups within a category, but will only be assigned to that overall category a single time. Thus, the sum of patients from the subgroups should total more than the total number of patients in the category that contains those subgroups since individual patients may be counted in more than one subgroup category.

For example, assume a patient has diagnosis codes for both strabismus and amblyopia. This patient would be counted once in the “Strabismus and Amblyopia” category, but would be reported in both of the underlying subgroups of “Strabismus” and also “Amblyopia”. This same patient may also be included in other categories and subgroups.

The sample (denominator) of patients consists of the total number of current patients with an encounter with an IRIS-member provider during the year of observation.

Stratification Factors

We report the summary outcomes of each data indicator overall, and by stratification factors. These stratification factors include age group, sex, race/ethnicity, and state. This report includes outcomes by each individual stratification factor, for example, by age group, or by race. In an extension of the report, the interactive VEHSS data visualization application will allow users to query results for combinations of stratification factors. For example, a user could query outcomes for 85+ year old Hispanic females in Florida.

Age Groups

IRIS® Registry data are reported to VEHSS in the following defined major age groups: 0-17, 18-39, 40-64, 65-84, 85+.

Sex Categories

IRIS® Registry reports data by Male and Female sex, as well as unknown for patient records without a sex designation.

Race/ethnicity Categories

IRIS® Registry codes race using US Census race and ethnicity definitions. We applied the VEHSS race/ethnicity identifiers which include:

- American Indian and Alaska Native (AIAN)
- Asian
- Black (non-Hispanic)
- Hispanic (any race)
- White (non-Hispanic)
- Other (including multiple race)
- Unknown
- All Races

States and Territories

Table 3. VEHSS State and Territory Abbreviations

AK	Alaska	LA	Louisiana	OK	Oklahoma
AL	Alabama	MA	Massachusetts	OR	Oregon
AR	Arkansas	MD	Maryland	PA	Pennsylvania
AS	American Samoa	ME	Maine	PR	Puerto Rico
AZ	Arizona	MH	Marshall Islands	PW	Palau
CA	California	MI	Michigan	RI	Rhode Island
CO	Colorado	MN	Minnesota	SC	South Carolina
CT	Connecticut	MO	Missouri	SD	South Dakota
DC	District of Columbia	MP	Northern Mariana Islands	TN	Tennessee
DE	Delaware	MS	Mississippi	TX	Texas
FL	Florida	MT	Montana	UT	Utah
GA	Georgia	NC	North Carolina	VA	Virginia
GU	Guam	ND	North Dakota	VI	U.S. Virgin Islands
HI	Hawaii	NE	Nebraska	VT	Vermont
IA	Iowa	NH	New Hampshire	WA	Washington
ID	Idaho	NJ	New Jersey	WI	Wisconsin
IL	Illinois	NM	New Mexico	WV	West Virginia
IN	Indiana	NV	Nevada	WY	Wyoming
KS	Kansas	NY	New York	XX	Missing State
KY	Kentucky	OH	Ohio	US	National

Insurance Providers

IRIS® Registry reported prevalence by mutually exclusive insurance categories. Insurance is difficult to assign in IRIS® Registry because different EMR systems report insurance differently, and generally may report all patient insurance providers on file. We and AAO have no way to identify which insurers are current, nor which insurers may have paid for any particular service. For this reason, we do not report insurance provider estimates publicly.

Suppression and Data Release Restrictions

To ensure patient privacy and protections, the VEHSS project implements additional data suppression on all publicly released data. All data incorporated into the VEHSS system is de-identified summary data. VEHSS does not report any patient-level data. Currently, VEHSS will employ the following data suppression algorithm for IRIS® data:

1. Suppress rates and denominator when denominator < 11
2. Suppress rates if numerator < 3 and denominator < 30
3. Report rates to 4 digits, formatting as percentage with two decimal points.
4. For public data on the VEHSS Data Visualization Application and CDC Open Data Platform, where permitted denominators are rounded to the nearest 100.

AAO has requested that VEHSS not release denominator counts for IRIS® data on the data visualization application. Other than the sample sizes reported in this data report, denominators will not be released without prior permission from AAO. In addition, IRIS® Registry data source files will not be released in tabular form for download, will not be housed on the Open Data platform, nor will it be directly accessible through API or download. Users may query IRIS® Registry data through the VEHSS project data visualization application.

Validation

Sample Description, Size, and Assumptions

The IRIS® Registry provides a large convenience sample of more than 17 million patients in 2016. Eventually, IRIS® Registry hopes to include nearly all ophthalmology practices in the United States; however, the 2016 IRIS® Registry data contained approximately 50% of practices. This coverage rate is expected to reach 83% in 2017. Like all convenience samples, IRIS® Registry suffers from non-response bias attributable to any systematic exclusion or over-representation of groups. As the size of convenience sample approaches the size of the population, the level of potential bias is reduced. Even within a convenience sample, estimates for individual population groups are valid in terms of representing members of the sample as long as care is taken to explain who is included in the sample and what the results can be said to represent. For some conditions and populations, IRIS® Registry data may represent the first and only measurement of the condition that exists. IRIS® Registry data can also be used in combination with other information to inform population estimates of eye condition prevalence rates. Finally, the sample size of IRIS® Registry has the benefit of being large enough to allow for the reporting of results for most conditions, at most levels of stratification, without the need for data suppression for privacy protection.

Despite the above advantages, the IRIS® Registry also has several limitations as a measure of utilization prevalence rates. IRIS® Registry is expected to expand in size over the next five to ten years until it includes a large majority of ophthalmology practices in the United States. However, at last measurement, IRIS® Registry still suffered from differential representation and underrepresentation of specific stratification groups, as shown below in summary Tables 4 and 5. Primarily, the IRIS® Registry patient population is skewed towards older ages compared to their representation in the general population. For example, the 2016 IRIS® Registry patient population represented 33.32% of all American residents aged 85 and older, but only 3.07% of children aged 0-17. This may reflect a true representation of the population who utilize ophthalmologic care, which seems likely. However, it is possible that IRIS® Registry may also be more likely to include providers treating older patients, such as providers specializing in Medicare patients who join IRIS® Registry to assist with Medicare PQRS reporting requirements. IRIS® Registry also shows wide state variation in coverage, ranging from a low of 1.08% of Washington DC residents to 9.19% of Kansas residents, and 19.09% of residents of the Northern Mariana Islands. In addition, the IRIS® Registry sample included only 2.46% of the 50.5 million Hispanic US residents, but includes 48.27% of the census estimate of residents of the other/multiple races category (6.1 million). This value appears to be implausibly high and may indicate differences or limitations in the collection and recording of race/ethnicity at the practice level. The low rate of Hispanics may also be partly due to the lack of requirement to identify patient's ethnicity in the EHR, or low rates of reporting Hispanic ethnicity, and not attributable to any systematic bias in selecting non-Hispanic patient populations.

Finally, we are unable to validate the quality of the underlying EMR data, nor the accuracy and efficacy of the process of mapping EMR records to IRIS® Registry diagnostic and procedure information. However, the EMR data is the legal record of medical care, and it would be difficult to validate. The details of this process are not publicly released and, to our knowledge, have not been validated by outside experts.

Outcome Coverage

83.41% of IRIS® patients had an acuity category value, with the remaining classified to Missing.

Examinations and Medical Diagnoses are coded if they are present, and thus we cannot determine if some patients are missing such information. However, based on our analysis IRIS® Registry reports higher examination and diagnosis rates for Medicare patients than are observed in Medicare FFS claims which may mitigate this concern.

While AAO reported the proportion of IRIS® patients who had an eye exam, this rate is based on a denominator consisting of patients with an encounter with their ophthalmologist in the year of observation. Thus, this rate did not represent a population rate of eye exams, but rather the proportion of patients who had an eye care visit who were also recorded as having a comprehensive eye exam. We will explore options for estimating population-level examination rates in future iterations of this analysis. Currently, we do not report these rates.

Potential Limitations

This analysis is subject to a number of potential limitations. Under contract to NORC, AAO analyzed 2016 IRIS® Registry data for the VEHSS project. AAO reported summary outcome statistics based on VEHSS-defined data indicators and case definitions for visual function, eye examinations, and medical diagnoses. Some of the possible limitations include the following:

- NORC and VEHSS do not have access to patient level data nor details on the process of mapping EMR data to IRIS® Registry. The quality of underlying EMR data, and the process of mapping EMR records to IRIS® Registry could not be validated by the VEHSS team.
- IRIS® Registry data represents a sample of current ophthalmology patients, and should not be considered representative of the general population. IRIS® Registry rates contained in this report are calculated on the basis of per 100 current ophthalmology patients, and are not representative of the overall population.
- IRIS® Registry does not include all ophthalmology practices, and may be more likely to include practices who primarily serve Medicare patients because automated PQRS reporting is a motivating factor for providers to register with IRIS® Registry. The IRIS® Registry is a convenience sample and its representativeness of the population of all ophthalmology patients is still being studied.
- IRIS® Registry only includes patients of ophthalmology practices. About 20% to 30% of providers in IRIS® Registry are optometrists who work for mixed-provider practices participating in IRIS® Registry.
- IRIS® Registry includes services provided regardless of payer, but cannot identify the payer of specific procedures.
- Eye examination rates are not reported due to the lack of a suitable denominator.

Summary Statistics

Table 4. 2016 IRIS® Registry Sample Size (patient counts)

Total Sample					
	17,361,000				
By sex					
Female	10,213,000	Male	7,128,000	Unknown	20,000
By Age Groups					
0-17 years	1,248,000	40-64 years	5,422,000	85+ years	1,400,000
18-39 years	1,666,000	65-85 years	7,624,000		
By Race/Ethnicity					
Asian	481,000	Hispanic	1,242,000	Other	2,946,000
Black	1,174,000	AIAN	83,000	White	11,436,000
By State					
AK	15,000	LA	199,000	OK	196,000
AL	221,000	MA	477,000	OR	351,000
AR	144,000	MD	399,000	PA	959,000
AS	3,000	ME	105,000	PR	96,000
AZ	414,000	MI	590,000	RI	17,000
CA	1,090,000	MN	347,000	SC	294,000
CO	269,000	MO	322,000	SD	42,000
CT	274,000	MP	11,000	TN	305,000
DC	7,000	MS	131,000	TX	1,517,000
DE	82,000	MT	19,000	UT	169,000
FL	1,163,000	NC	540,000	VA	529,000
GA	592,000	ND	37,000	VI	3,000
HI	72,000	NE	109,000	VT	16,000
IA	207,000	NH	50,000	WA	408,000
ID	42,000	NJ	684,000	WI	122,000
IL	670,000	NM	163,000	WV	78,000
IN	379,000	NV	178,000	WY	19,000
KS	267,000	NY	1,012,000	XX	61,000
KY	205,000	OH	688,000		

Table 5. 2016 IRIS® Registry Sample Rate, % of 2016 Census population estimate (rate per 100)

Total Sample					
	5.31 (326,752,393)				
By sex					
Female	6.16 (165,888,905)	Male	4.43 (160,863,488)	Unknown	NA
By Age Groups					
0-17 years	3.07 (40,618,320)	40-64 years	10.10 (53,659,860)	85+ years	33.32 (4,202,105)
18-39 years	3.80 (43,861,516)	65-85 years	14.21 (23,557,217)		
By Race/Ethnicity					
Asian	3.28 (14,661,516)	Hispanic	2.46 (50,477,594)	Other	48.27 (6,101,692)
Black	3.09 (37,922,522)	AIAN	3.68 (2,263,258)	White	5.80 (197,318,956)
By State					
AK	2.06 (741,894)	LA	4.25 (4,681,666)	OK	4.99 (3,923,561)
AL	4.54 (4,863,300)	MA	7.01 (6,811,779)	OR	8.58 (4,093,465)
AR	4.81 (2,988,248)	MD	6.63 (6,016,447)	PA	7.5 (12,784,227)
AS	4.86 (55,599)	ME	7.92 (1,331,479)	PR	2.83 (3,411,307)
AZ	5.98 (6,931,071)	MI	5.94 (9,928,300)	RI	1.62 (1,056,426)
CA	2.78 (39,250,017)	MN	6.29 (5,519,952)	SC	5.93 (4,961,119)
CO	4.86 (5,540,545)	MO	5.29 (6,093,000)	SD	4.82 (865,454)
CT	7.66 (3,576,452)	MP	19.09 (55,023)	TN	4.59 (6,651,194)
DC	1.08 (681,170)	MS	4.4 (2,988,726)	TX	5.44 (27,862,596)
DE	8.62 (952,065)	MT	1.79 (1,042,520)	UT	5.55 (3,051,217)
FL	5.64 (20,612,439)	NC	5.32 (10,146,788)	VA	6.29 (8,411,808)
GA	5.74 (10,310,371)	ND	4.9 (757,952)	VI	3.35 (102,951)
HI	5.04 (1,428,557)	NE	5.74 (1,907,116)	VT	2.6 (624,594)
IA	6.59 (3,134,693)	NH	3.73 (1,334,795)	WA	5.59 (7,288,000)
ID	2.49 (1,683,140)	NJ	7.65 (8,944,469)	WI	2.12 (5,778,708)
IL	5.24 (12,801,539)	NM	7.82 (2,081,015)	WV	4.24 (1,831,102)
IN	5.72 (6,633,053)	NV	6.05 (2,940,058)	WY	3.16 (585,501)
KS	9.19 (2,907,289)	NY	5.13 (19,745,289)		
KY	4.63 (4,436,974)	OH	5.93 (11,614,373)		

Vision Exam Measures (observed prevalence per 100 patients)

Table 6. Best-corrected Visual Acuity by Age Group (95% CI)

Age Group	Normal Vision		Monocular Vision Loss		US Blind	Missing	Sample Size
	Impairment						
0-17 years	53.84 (53.75 - 53.93)	8.45 (8.41 - 8.50)	1.16 (1.14 - 1.17)	0.39 (0.38 - 0.41)	30.00 (29.92 – 30.08)		1,247,704
18-39 years	69.87 (69.80 - 69.94)	9.29 (9.25 - 9.34)	1.79 (1.77 - 1.81)	0.54 (0.54 - 0.57)	18.48 (18.42 - 18.54)		1,666,363
40-64 years	64.75 (64.71- 64.79)	15.35 (15.32 - 15.38)	2.47 (2.46 - 2.48)	0.63 (0.62 - 0.64)	16.80 (16.77 - 16.83)		5,422,369
65-84 years	52.12 (52.08- 52.15)	30.18 (30.15- 30.21)	2.66 (2.65 - 2.67)	0.85 (0.85 - 0.86)	14.19 (14.17- 14.22)		7,624,086
85+ years	27.90 (27.82- 27.97)	50.47 (50.38 - 50.55)	2.66 (2.63- 2.69)	4.37 (4.34 - 4.41)	14.60 (14.54 - 14.66)		1,400,382
All Ages	55.94 (55.91- 55.96)	24.06 (24.04 - 24.08)	2.41 (2.40 - 2.42)	1.01 (1.00 - 1.01)	16.59 (16.57- 16.60)		17,360,904

Table 7. Best-corrected Visual Acuity by Sex (95% CI)

Race/Ethnicity	Normal Vision		Monocular Vision Loss		US Blind	Missing	Sample Size
	Impairment						
Female	55.79 (55.76 - 55.82)	25.23 (25.20 - 25.26)	2.15 (2.14 - 2.16)	1.04 (1.04 - 1.05)	15.78 (15.76 - 15.81)		10,213,000
Male	56.16 (56.12 - 56.19)	22.40 (22.37 - 22.44)	2.78 (2.77 - 2.80)	0.95 (0.94 - 0.96)	17.70 (17.67 - 17.73)		7,128,000
Unknown	50.99 (50.30 – 51.68)	18.14 (17.61 – 18.68)	1.96 (1.78 – 2.17)	0.69 (0.58 - 0.82)	28.22 (27.59 – 28.84)		20,000
All Sex Categories	55.94 (55.91 - 55.96)	24.06 (24.04 - 24.06)	2.41 (2.40 – 2.42)	1.01 (1.00 - 1.01)	16.59 (16.57- 16.60)		17,361,000

Table 8. Best-corrected Visual Acuity by Race/Ethnicity (95% CI)

Race/Ethnicity	Normal Vision	Impairment	Monocular Vision Loss	US Blind	Missing	Sample Size
AIAN	55.06 (54.72 - 55.4)	24.48 (24.19 - 24.78)	2.61 (2.50 - 2.72)	1.14 (1.07 - 1.22)	16.70 (16.45 - 16.96)	83,000
Asian	51.25 (51.11 - 51.39)	25.06 (24.93 - 25.18)	1.77 (1.73 - 1.81)	0.82 (0.79 - 0.84)	21.11 (20.99 - 21.22)	481,000
Black	52.87 (52.78 - 52.96)	25.79 (25.71 - 25.87)	2.67 (2.64 - 2.70)	1.37 (1.35 - 1.39)	17.30 (17.23 - 17.36)	1,174,000
Hispanic	49.35 (49.26 - 49.44)	27.74 (27.67 - 27.82)	2.25 (2.22 - 2.27)	1.29 (1.28 - 1.32)	19.37 (19.30 - 19.44)	1,242,000
White	57.50 (57.47 - 57.53)	24.06 (24.03 - 24.08)	2.50 (2.49 - 2.51)	0.97 (0.97 - 0.98)	14.97 (14.95 - 14.99)	11,436,000
Other	54.65 (54.60 - 54.71)	21.66 (21.61 - 21.71)	2.12 (2.10 - 2.14)	0.90 (0.89 - 0.91)	20.66 (20.62 - 20.71)	2,946,000
All Races	55.94 (55.91 - 55.96)	24.06 (24.04 - 24.08)	2.41 (2.40 - 2.42)	1.01 (1.00 - 1.01)	16.59 (16.57 - 16.6)	17,361,000

Table 9a. Best-corrected Visual Acuity by State, Normal Vision

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	60.30	(59.52 - 61.08)	NC	58.19	(58.06 - 58.32)
AL	38.03	(37.83 - 38.24)	ND	54.86	(54.35 - 55.36)
AR	57.52	(57.27 - 57.78)	NE	54.53	(54.24 - 54.83)
AS	71.60	(69.86 - 73.30)	NH	68.15	(67.74 - 68.56)
AZ	52.08	(51.93 - 52.23)	NJ	55.45	(55.33 - 55.57)
CA	48.92	(48.83 - 49.02)	NM	47.44	(47.20 - 47.69)
CO	59.78	(59.59 - 59.96)	NV	60.84	(60.61 - 61.07)
CT	55.96	(55.77 - 56.15)	NY	56.31	(56.22 - 56.41)
DC	54.18	(53.04 - 55.32)	OH	54.64	(54.52 - 54.76)
DE	42.93	(42.59 - 43.27)	OK	58.48	(58.26 - 58.70)
FL	49.86	(49.77 - 49.96)	OR	64.98	(64.83 - 65.14)
GA	59.38	(59.26 - 59.51)	PA	55.07	(54.97 - 55.17)
HI	54.52	(54.16 - 54.89)	PR	45.69	(45.37 - 46.00)
IA	66.67	(66.46 - 66.87)	RI	58.70	(57.96 - 59.44)
ID	56.96	(56.48 - 57.43)	SC	56.42	(56.24 - 56.60)
IL	56.19	(56.07 - 56.31)	SD	59.85	(59.38 - 60.32)
IN	60.26	(60.10 - 60.41)	TN	54.62	(54.44 - 54.80)
KS	68.94	(68.77 - 69.12)	TX	53.10	(53.02 - 53.18)
KY	49.46	(49.25 - 49.68)	UT	62.97	(62.74 - 63.20)
LA	47.84	(47.62 - 48.06)	VA	55.40	(55.26 - 55.53)
MA	60.16	(60.02 - 60.30)	VI	25.64	(24.19 - 27.13)
MD	62.52	(62.37 - 62.67)	VT	61.66	(60.91 - 62.41)
ME	48.05	(47.75 - 48.35)	WA	59.89	(59.74 - 60.04)
MI	59.52	(59.39 - 59.64)	WI	55.44	(55.16 - 55.71)
MN	68.82	(68.66 - 68.97)	WV	56.82	(56.47 - 57.17)
MO	63.86	(63.70 - 64.03)	WY	72.08	(71.43 - 72.73)
MP	76.12	(75.29 - 76.93)	XX	42.22	(41.82 - 42.61)
MS	57.74	(57.47 - 58.01)	US	55.94	(55.91 - 55.96)
MT	69.81	(69.15 - 70.47)			

Table 9b. Best-corrected Visual Acuity by State, Impairment

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	23.17	(22.50 - 23.85)	NC	23.01	(22.90 - 23.13)
AL	21.20	(21.03 - 21.37)	ND	27.80	(27.35 - 28.26)
AR	26.47	(26.25 - 26.70)	NE	28.80	(28.53 - 29.07)
AS	9.81	(8.71 – 11.00)	NH	15.04	(14.72 - 15.35)
AZ	28.10	(27.96 - 28.24)	NJ	20.15	(20.06 - 20.25)
CA	26.50	(26.42 - 26.59)	NM	28.68	(28.46 - 28.90)
CO	23.22	(23.06 - 23.38)	NV	25.40	(25.20 - 25.61)
CT	22.41	(22.25 - 22.57)	NY	20.99	(20.91 - 21.07)
DC	13.24	(12.47 - 14.03)	OH	25.38	(25.28 - 25.48)
DE	20.90	(20.63 - 21.18)	OK	25.82	(25.62 - 26.01)
FL	28.18	(28.10 - 28.26)	OR	21.16	(21.02 - 21.29)
GA	24.64	(24.53 - 24.75)	PA	25.10	(25.02 - 25.19)
HI	22.13	(21.83 - 22.43)	PR	23.41	(23.15 - 23.68)
IA	20.31	(20.13 - 20.48)	RI	21.14	(20.53 - 21.76)
ID	24.79	(24.38 - 25.21)	SC	28.89	(28.73 - 29.05)
IL	23.85	(23.75 - 23.95)	SD	32.09	(31.65 - 32.54)
IN	24.16	(24.03 - 24.30)	TN	27.12	(26.96 - 27.28)
KS	18.72	(18.57 - 18.86)	TX	27.18	(27.11 - 27.25)
KY	25.08	(24.89 - 25.27)	UT	16.39	(16.21 - 16.57)
LA	20.69	(20.51 - 20.87)	VA	20.92	(20.81 - 21.03)
MA	18.93	(18.82 - 19.05)	VI	33.80	(32.22 - 35.41)
MD	20.68	(20.56 - 20.81)	VT	21.39	(20.77 - 22.03)
ME	20.27	(20.03 - 20.52)	WA	23.96	(23.83 - 24.10)
MI	26.89	(26.77 – 27.00)	WI	21.36	(21.13 - 21.59)
MN	19.10	(18.97 - 19.23)	WV	28.53	(28.21 - 28.85)
MO	20.68	(20.55 - 20.83)	WY	18.65	(18.09 - 19.22)
MP	13.29	(12.65 - 13.96)	XX	24.16	(23.82 - 24.50)
MS	23.86	(23.63 - 24.09)	US	24.06	(24.04 - 24.08)
MT	21.61	(21.03 - 22.21)			

Table 9c. Best-corrected Visual Acuity by State, Monocular Vision Loss

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	2.53	(2.29 - 2.79)	NC	2.41	(2.37 - 2.45)
AL	1.94	(1.89 - 2.00)	ND	3.30	(3.12 - 3.48)
AR	2.64	(2.56 - 2.72)	NE	2.75	(2.65 - 2.84)
AS	1.04	(0.69 - 1.49)	NH	1.76	(1.65 - 1.88)
AZ	2.26	(2.21 - 2.3)	NJ	1.53	(1.50 - 1.56)
CA	2.30	(2.27 - 2.32)	NM	2.10	(2.03 - 2.17)
CO	5.69	(5.60 - 5.78)	NV	2.80	(2.72 - 2.87)
CT	2.03	(1.98 - 2.09)	NY	1.97	(1.94 - 1.99)
DC	1.90	(1.60 - 2.24)	OH	2.82	(2.79 - 2.86)
DE	1.61	(1.52 - 1.69)	OK	3.06	(2.98 - 3.13)
FL	2.44	(2.41 - 2.47)	OR	2.13	(2.09 - 2.18)
GA	2.55	(2.51 - 2.59)	PA	2.26	(2.23 - 2.29)
HI	1.73	(1.63 - 1.83)	PR	2.11	(2.02 - 2.20)
IA	2.80	(2.72 - 2.87)	RI	2.95	(2.70 - 3.22)
ID	4.22	(4.03 - 4.42)	SC	2.83	(2.77 - 2.89)
IL	2.20	(2.16 - 2.23)	SD	3.46	(3.29 - 3.64)
IN	2.71	(2.66 - 2.77)	TN	2.68	(2.62 - 2.73)
KS	2.66	(2.60 - 2.72)	TX	2.54	(2.52 - 2.57)
KY	2.37	(2.30 - 2.44)	UT	1.73	(1.67 - 1.80)
LA	1.72	(1.67 - 1.78)	VA	2.02	(1.98 - 2.06)
MA	1.93	(1.89 - 1.97)	VI	0.20	(0.08 - 0.42)
MD	1.90	(1.86 - 1.94)	VT	3.02	(2.76 - 3.29)
ME	3.57	(3.46 - 3.69)	WA	2.36	(2.31 - 2.40)
MI	2.54	(2.50 - 2.58)	WI	2.40	(2.32 - 2.49)
MN	2.88	(2.82 - 2.93)	WV	3.36	(3.23 - 3.49)
MO	2.86	(2.80 - 2.92)	WY	3.11	(2.86 - 3.37)
MP	2.49	(2.20 - 2.80)	XX	2.43	(2.31 - 2.56)
MS	2.43	(2.35 - 2.51)	US	2.41	(2.40 - 2.42)
MT	3.48	(3.22 - 3.75)			

Table 9d. Best-corrected Visual Acuity by State, US Blind

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	0.64	(0.52 - 0.77)	NC	1.13	(1.10 - 1.16)
AL	0.96	(0.92 – 1.00)	ND	1.47	(1.35 - 1.60)
AR	1.30	(1.25 - 1.36)	NE	1.3	(1.23 - 1.37)
AS	0.30	(0.13 - 0.58)	NH	0.52	(0.46 - 0.59)
AZ	0.90	(0.87 - 0.93)	NJ	0.62	(0.60 - 0.64)
CA	1.35	(1.33 - 1.38)	NM	0.88	(0.83 - 0.92)
CO	1.02	(0.98 - 1.06)	NV	0.83	(0.79 - 0.88)
CT	0.89	(0.85 - 0.93)	NY	0.7	(0.68 - 0.71)
DC	0.58	(0.42 - 0.78)	OH	1.21	(1.19 - 1.24)
DE	0.67	(0.61 - 0.73)	OK	1.15	(1.11 - 1.20)
FL	1.08	(1.07 - 1.10)	OR	0.77	(0.74 - 0.80)
GA	1.06	(1.03 - 1.09)	PA	1.11	(1.09 - 1.13)
HI	0.72	(0.66 - 0.78)	PR	0.9	(0.84 - 0.96)
IA	0.85	(0.81 - 0.89)	RI	0.62	(0.51 - 0.75)
ID	1.54	(1.42 - 1.66)	SC	1.18	(1.14 - 1.22)
IL	0.89	(0.86 - 0.91)	SD	1.2	(1.09 - 1.30)
IN	1.17	(1.13 - 1.20)	TN	1.22	(1.19 - 1.26)
KS	1.05	(1.02 - 1.09)	TX	1.2	(1.18 - 1.21)
KY	1.02	(0.98 - 1.06)	UT	0.47	(0.44 - 0.51)
LA	0.95	(0.91 – 1.00)	VA	0.79	(0.77 - 0.81)
MA	0.78	(0.75 - 0.80)	VI	0.29	(0.14 - 0.53)
MD	0.58	(0.56 - 0.61)	VT	0.97	(0.82 - 1.13)
ME	1.26	(1.20 - 1.33)	WA	1.04	(1.01 - 1.08)
MI	1.16	(1.13 - 1.19)	WI	1.04	(0.99 - 1.10)
MN	0.67	(0.64 - 0.69)	WV	1.13	(1.06 - 1.21)
MO	0.99	(0.96 - 1.03)	WY	1.35	(1.19 - 1.53)
MP	0.66	(0.51 - 0.83)	XX	1.36	(1.27 - 1.45)
MS	1.02	(0.97 - 1.08)	US	1.01	(1.00 - 1.01)
MT	1.41	(1.25 - 1.59)			

Table 9e. Best-corrected Visual Acuity by State, Missing Acuity

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	13.36	(12.83 - 13.91)	NC	15.26	(15.16 - 15.35)
AL	37.86	(37.66 - 38.07)	ND	12.57	(12.23 - 12.91)
AR	12.06	(11.89 - 12.23)	NE	12.63	(12.43 - 12.83)
AS	17.25	(15.85 - 18.73)	NH	14.53	(14.22 - 14.85)
AZ	16.67	(16.56 - 16.78)	NJ	22.25	(22.15 - 22.35)
CA	20.92	(20.85 - 21.00)	NM	20.9	(20.70 - 21.10)
CO	10.29	(10.17 - 10.40)	NV	10.13	(9.99 - 10.27)
CT	18.71	(18.56 - 18.85)	NY	20.03	(19.95 - 20.11)
DC	30.1	(29.05 - 31.16)	OH	15.95	(15.86 - 16.03)
DE	33.9	(33.57 - 34.22)	OK	11.49	(11.35 - 11.64)
FL	18.43	(18.36 - 18.50)	OR	10.95	(10.85 - 11.06)
GA	12.37	(12.29 - 12.46)	PA	16.46	(16.38 - 16.53)
HI	20.9	(20.61 - 21.20)	PR	27.89	(27.60 - 28.17)
IA	9.38	(9.26 - 9.51)	RI	16.59	(16.03 - 17.15)
ID	12.49	(12.18 - 12.81)	SC	10.68	(10.57 - 10.8)
IL	16.88	(16.79 - 16.97)	SD	3.39	(3.22 - 3.57)
IN	11.7	(11.59 - 11.80)	TN	14.36	(14.23 - 14.48)
KS	8.63	(8.52 - 8.74)	TX	15.98	(15.92 - 16.04)
KY	22.07	(21.89 - 22.25)	UT	18.44	(18.25 - 18.62)
LA	28.79	(28.60 - 28.99)	VA	20.88	(20.77 - 20.99)
MA	18.2	(18.09 - 18.31)	VI	40.07	(38.43 - 41.73)
MD	14.32	(14.21 - 14.43)	VT	12.96	(12.45 - 13.49)
ME	26.84	(26.57 - 27.11)	WA	12.74	(12.64 - 12.84)
MI	9.9	(9.83 - 9.98)	WI	19.75	(19.53 - 19.98)
MN	8.54	(8.45 - 8.64)	WV	10.15	(9.94 - 10.37)
MO	11.6	(11.49 - 11.71)	WY	4.81	(4.50 - 5.13)
MP	7.45	(6.95 - 7.96)	XX	29.83	(29.47 - 30.20)
MS	14.95	(14.76 - 15.14)	US	16.59	(16.57 - 16.60)
MT	3.69	(3.42 - 3.97)			

Medical Diagnosis Indicators (Number of patients with diagnosis per 100 patients)

Table 10. Prevalence Rates of Medical Diagnoses by Category and Subgroup

Category Subgroup	Prevalence (95% CI)			
Age related macular degeneration	11.34	(11.33	-	11.36)
Dry form	7.36	(7.34	-	7.37)
Early	3.01	(3.00	-	3.02)
Unspecified	0.67	(0.66	-	0.67)
Wet-form	2.81	(2.80	-	2.81)
Blindness and low vision diagnosis	0.20	(0.19	-	0.20)
Moderate bilateral impairment	0.01	(0.01	-	0.01)
Moderate imp. better eye, profound imp. lesser eye	0.02	(0.02	-	0.02)
Profound bilateral imp., legal blindness	0.04	(0.04	-	0.04)
Unqualified in one eye, or unspecified	0.08	(0.08	-	0.08)
Unqualified, both eyes	0.00	(0.00	-	0.00)
Vision impairment one eye	0.05	(0.04	-	0.05)
Cancer and neoplasms of the eye diseases	1.61	(1.61	-	1.62)
Benign neoplasm	1.54	(1.53	-	1.54)
Malignant neoplasm	0.08	(0.08	-	0.08)
Cataracts	48.04	(48.02	-	48.07)
Aphakia and disorders of lens	0.48	(0.48	-	0.48)
Congenital Cataract	0.28	(0.28	-	0.28)
Non-congenital cataract	0.58	(0.58	-	0.58)
Posterior capsular opacity	4.01	(4.00	-	4.01)
Pseudophakia	21.84	(21.82	-	21.86)
Senile cataract	29.48	(29.46	-	29.50)
Cornea disorders	5.41	(5.40	-	5.42)
Endothelial dystrophy (Fuchs)	1.51	(1.51	-	1.52)
Keratoconus	0.44	(0.44	-	0.45)
Other corneal disorders	3.75	(3.74	-	3.76)
Diabetic eye diseases	5.54	(5.53	-	5.55)
Diabetic macular edema	1.81	(1.81	-	1.82)
Early/mild	3.01	(3.00	-	3.02)
Moderate/Severe non-proliferative	1.34	(1.33	-	1.34)
Other diabetes related	5.10	(5.09	-	5.11)
Proliferative	1.55	(1.54	-	1.55)

Category	Subgroup	Prevalence (95% CI)			
Disorders of optic nerve and visual pathways		2.04	(2.04	-	2.05)
	Optic nerve disorders	2.04	(2.03	-	2.05)
	Visual pathway disorders	0.00	(0.00	-	0.00)
Refraction and accommodation		19.39	(19.37	-	19.40)
	Astigmatism	4.79	(4.78	-	4.80)
	Hypermetropia	6.55	(6.54	-	6.56)
	Myopia	6.09	(6.08	-	6.10)
	Other	0.12	(0.12	-	0.13)
	Presbyopia	7.74	(7.72	-	7.75)
Glaucoma		18.74	(18.72	-	18.76)
	Congenital	0.03	(0.03	-	0.03)
	Glaucoma suspect	10.28	(10.27	-	10.29)
	Low-tension	0.58	(0.57	-	0.58)
	Narrow-angle	0.85	(0.84	-	0.85)
	Neovascular	0.23	(0.22	-	0.23)
	Open-angle	0.95	(0.94	-	0.95)
	Other/unspecified glaucoma	0.73	(0.72	-	0.73)
	Primary angle-closure	0.39	(0.38	-	0.39)
	Primary open-angle	6.83	(6.82	-	6.84)
	**Severe stage modifier of other diagnoses	1.77	(1.76	-	1.78)
Infectious and inflammatory diseases		14.31	(14.30	-	14.33)
	Conjunctivitis	4.00	(3.99	-	4.01)
	Endophthalmitis	0.14	(0.14	-	0.14)
	Eyelid disorders	4.80	(4.79	-	4.81)
	Infectious diseases	0.96	(0.95	-	0.96)
	Keratitis	4.83	(4.82	-	4.84)
	Lacrimal and orbit inflammation	0.46	(0.46	-	0.47)
	Other/unspecified infectious and inflammatory diseases	1.64	(1.63	-	1.64)
Injury, burns and surgical complications of the eye		2.36	(2.35	-	2.37)
	Burn	0.04	(0.04	-	0.04)
	Injury	1.95	(1.94	-	1.96)
	Surgical complication	0.43	(0.42	-	0.43)
Orbital and external disease diseases		12.79	(12.77	-	12.81)
	Congenital anomalies	0.58	(0.58	-	0.58)
	Disorders of the globe	0.09	(0.09	-	0.09)
	Dry eye syndrome	8.98	(8.96	-	8.99)
	Eyelid disorders	4.16	(4.15	-	4.17)
	Lacrimal diseases	0.43	(0.43	-	0.43)
	Other/unspecified orbital and external disease diseases	0.09	(0.09	-	0.09)
Other retinal disorders		14.66	(14.64	-	14.67)

Category	Subgroup	Prevalence (95% CI)			
	Non-Occlusive	1.60	(1.59	-	1.60)
	Central retinal arterial occlusion	0.12	(0.12	-	0.13)
	Branch retinal artery occlusion	0.20	(0.20	-	0.20)
	Branch retinal vein occlusion	0.89	(0.88	-	0.89)
	Myopic degeneration	0.74	(0.74	-	0.74)
	Hereditary chorioretinal dystrophy	0.47	(0.47	-	0.48)
	Other/unspecified other retinal disorders	11.72	(11.71	-	11.74)
	Macular edema (not diabetic)	0.91	(0.91	-	0.92)
	Central retinal vein occlusion	11.72	(11.70	-	11.73)
	Retina vascular disease, Occlusive	0.14	(0.14	-	0.15)
Other eye disorders		12.63	(12.62	-	12.65)
Other visual disturbances		2.91	(2.90	-	2.92)
	Color blindness	0.02	(0.02	-	0.02)
	Night blindness	1.57	(1.56	-	1.57)
	Other/unspecified visual disturbances	0.95	(0.94	-	0.95)
	Visual field defect	0.45	(0.45	-	0.45)
Retinal detachment and defects		2.33	(2.32	-	2.34)
Strabismus and amblyopia		3.58	(3.57	-	3.59)
	Amblyopia	2.03	(2.03	-	2.04)
	Strabismus	1.96	(1.95	-	1.97)

Table 11. Prevalence Rates of Medical Diagnoses by Category

	0-17 years Rate (95%CI)	18-39 years Rate (95%CI)	40-64 years Rate (95%CI)	65-84 years Rate (95%CI)	85 years and older Rate (95%CI)	All Ages Rate (95%CI)
Age related macular degeneration	0.06 (0.06 - 0.07)	0.45 (0.44 - 0.46)	3.61 (3.59 - 3.62)	15.47 (15.44 - 15.49)	41.87 (41.78 - 41.95)	11.34 (11.33 - 11.36)
Blindness and low vision	0.21 (0.20 - 0.22)	0.19 (0.18 - 0.19)	0.18 (0.17 - 0.18)	0.17 (0.17 - 0.18)	0.40 (0.39 - 0.42)	0.20 (0.19 - 0.20)
Cancer and neoplasms of the eye diseases	0.50 (0.49 - 0.52)	0.84 (0.83 - 0.86)	1.53 (1.52 - 1.54)	1.95 (1.94 - 1.96)	1.98 (1.95 - 2.00)	1.61 (1.61 - 1.62)
Cataracts	1.17 (1.15 - 1.19)	3.57 (3.55 - 3.60)	40.18 (40.13 - 40.22)	68.35 (68.31 - 68.38)	62.65 (62.57 - 62.73)	48.04 (48.02 - 48.07)
Cornea disorders	0.89 (0.88 - 0.91)	4.37 (4.34 - 4.40)	4.77 (4.75 - 4.79)	6.32 (6.31 - 6.34)	8.21 (8.17 - 8.26)	5.41 (5.40 - 5.42)
Diabetic eye diseases	0.04 (0.04 - 0.04)	1.72 (1.7 - 1.74)	6.85 (6.83 - 6.87)	6.62 (6.60 - 6.64)	4.00 (3.97 - 4.04)	5.54 (5.53 - 5.55)
Disorders of optic nerve and visual pathways	1.16 (1.14 - 1.18)	1.84 (1.82 - 1.86)	1.99 (1.98 - 2.01)	2.15 (2.14 - 2.16)	2.70 (2.67 - 2.73)	2.04 (2.04 - 2.05)
Refraction and accommodation	40.71 (40.62 - 40.79)	24.12 (24.05 - 24.18)	21.92 (21.89 - 21.96)	14.68 (14.66 - 14.71)	10.55 (10.50 - 10.60)	19.39 (19.37 - 19.40)
Glaucoma	2.26 (2.24 - 2.29)	6.52 (6.48 - 6.56)	16.94 (16.90 - 16.97)	23.49 (23.46 - 23.52)	29.08 (29.00 - 29.15)	18.74 (18.72 - 18.76)
Infectious and inflammatory diseases	9.23 (9.18 - 9.28)	15.76 (15.71 - 15.82)	14.93 (14.90 - 14.96)	14.28 (14.25 - 14.3)	14.97 (14.91 - 15.03)	14.31 (14.30 - 14.33)
Injury, burns and surgical complications of the eye	2.09 (2.07 - 2.12)	4.24 (4.21 - 4.28)	2.59 (2.57 - 2.60)	1.86 (1.85 - 1.87)	2.19 (2.17 - 2.22)	2.36 (2.35 - 2.37)
Orbital and external disease diseases	6.00 (5.96 - 6.04)	7.38 (7.34 - 7.42)	11.58 (11.55 - 11.61)	15.15 (15.12 - 15.17)	17.11 (17.05 - 17.17)	12.79 (12.77 - 12.81)
Other retinal disorders	3.16 (3.12 - 3.19)	6.38 (6.34 - 6.42)	12.12 (12.09 - 12.15)	18.82 (18.79 - 18.85)	21.93 (21.86 - 21.99)	14.66 (14.64 - 14.67)
Other eye disorders	1.73 (1.70 - 1.75)	4.42 (4.39 - 4.45)	11.31 (11.29 - 11.34)	16.43 (16.41 - 16.46)	16.54 (16.48 - 16.61)	12.63 (12.62 - 12.65)
Other visual disturbances	4.33 (4.30 - 4.37)	3.2 (3.17 - 3.22)	2.65 (2.63 - 2.66)	2.70 (2.69 - 2.71)	3.47 (3.44 - 3.50)	2.91 (2.90 - 2.92)
Retinal detachment and defects	0.32 (0.31 - 0.33)	1.65 (1.63 - 1.67)	3.08 (3.07 - 3.1)	2.43 (2.42-2.44)	1.48 (1.46 - 1.50)	2.33 (2.32 - 2.34)
Strabismus and amblyopia	19.41 (19.34 - 19.48)	3.55 (3.52 - 3.58)	2.24 (2.22 - 2.25)	2.21 (2.20-2.22)	2.17 (2.15 - 2.20)	3.58 (3.57 - 3.59)

Table 12. Medical Diagnosis Categories by Sex (95% CI)

	Female		Male		Unknown		All	
Age related macular degeneration	12.07	(12.05-12.09)	10.32	(10.29-10.34)	6.35	(6.01-6.69)	11.34	(11.33-11.36)
Blindness and low vision	0.18	(0.18-0.19)	0.22	(0.21-0.22)	0.23	(0.17-0.31)	0.20	(0.19-0.20)
Cancer and neoplasms of the eye diseases	1.61	(1.60-1.62)	1.62	(1.61-1.63)	0.91	(0.78-1.05)	1.61	(1.61-1.62)
Cataracts	48.19	(48.16-48.22)	47.84	(47.80-47.87)	0.34	(0.27-0.43)	48.03	(48.01-48.06)
Cornea disorders	5.42	(5.41-5.44)	5.40	(5.38-5.42)	0.96	(0.83-1.10)	5.41	(5.40-5.42)
Diabetic eye diseases	4.76	(4.74-4.77)	6.65	(6.64-6.67)	1.50	(1.34-1.68)	5.53	(5.52-5.55)
Disorders of optic nerve and visual pathways	1.99	(1.98-2.00)	2.11	(2.10-2.12)	1.52	(1.36-1.70)	2.04	(2.04-2.05)
Refraction and accommodation	19.70	(19.67-19.72)	18.88	(18.85-18.91)	15.36	(14.87-15.87)	19.37	(19.36-19.39)
Glaucoma	18.59	(18.57-18.62)	18.97	(18.95-19.00)	0.01	(0.00-0.04)	18.74	(18.72-18.76)
Infectious and inflammatory diseases	15.20	(15.18-15.23)	13.07	(13.04-13.09)	5.23	(4.93-5.55)	14.33	(14.31-14.34)
Injury, burns and surgical complications of the eye	1.88	(1.87-1.88)	3.04	(3.03-3.06)	0.10	(0.06-0.16)	2.36	(2.35-2.37)
Orbital and external disease diseases	14.21	(14.19-14.23)	10.73	(10.71-10.75)	0.47	(0.38-0.57)	12.78	(12.77-12.80)
Other retinal disorders	13.99	(13.97-14.02)	15.60	(15.57-15.62)	0.20	(0.15-0.28)	14.65	(14.63-14.67)
Other eye disorders	12.77	(12.75-12.79)	12.41	(12.39-12.44)	6.06	(5.74-6.40)	12.62	(12.61-12.64)
Other visual disturbances	2.86	(2.85-2.87)	2.96	(2.95-2.98)	0.06	(0.03-0.10)	2.91	(2.90-2.92)
Retinal detachment and defects	1.82	(1.81-1.82)	3.06	(3.05-3.07)	2.30	(2.10-2.52)	2.33	(2.32-2.33)
Strabismus and amblyopia	3.31	(3.30-3.33)	3.96	(3.94-3.97)	2.04	(1.85-2.24)	3.58	(3.57-3.59)

Table 13. Medical Diagnosis Categories by Race/Ethnicity (95% CI)

	AIAN		Asian		Black		Hispanic		White		Other		All Races	
Age related macular degeneration	7.40	(7.22-7.58)	8.66	(8.58-8.74)	4.23	(4.20-4.27)	6.63	(6.59-6.68)	13.58	(13.56-13.60)	8.01	(7.98-8.04)	11.34	(11.33-11.36)
Blindness & low vision	0.22	(0.19-0.25)	0.17	(0.16-0.19)	0.31	(0.30-0.32)	0.21	(0.20-0.22)	0.19	(0.19-0.19)	0.17	(0.16-0.17)	0.20	(0.19-0.20)
Cancer & neoplasms of the eye diseases	0.86	(0.80-0.93)	0.50	(0.48-0.52)	0.41	(0.40-0.42)	0.77	(0.75-0.78)	1.95	(1.94-1.96)	1.34	(1.33-1.35)	1.61	(1.61-1.62)
Cataracts	39.59	(39.26-39.94)	41.29	(41.15-41.43)	46.95	(46.86-47.04)	39.40	(39.31-39.48)	51.16	(51.14-51.19)	41.29	(41.24-41.35)	48.03	(48.01-48.06)
Cornea disorders	4.66	(4.52-4.81)	4.04	(3.98-4.09)	5.49	(5.45-5.53)	4.76	(4.72-4.80)	5.78	(5.76-5.79)	4.49	(4.46-4.51)	5.41	(5.40-5.42)
Diabetic eye diseases	10.41	(10.20-10.62)	6.23	(6.16-6.30)	11.08	(11.02-11.14)	9.97	(9.92-10.02)	4.62	(4.61-4.64)	4.74	(4.72-4.76)	5.53	(5.52-5.55)
Disorders of optic nerve and visual pathways	1.73	(1.64-1.82)	2.06	(2.02-2.10)	2.79	(2.76-2.82)	2.22	(2.20-2.25)	2.06	(2.05-2.06)	1.62	(1.61-1.63)	2.04	(2.04-2.05)
Refraction and accommodation	15.97	(15.72-16.22)	16.60	(16.50-16.71)	17.56	(17.49-17.62)	19.20	(19.13-19.26)	19.73	(19.71-19.76)	19.33	(19.28-19.37)	19.37	(19.36-19.39)
Glaucoma	17.64	(17.38-17.90)	23.11	(22.99-23.23)	31.62	(31.54-31.71)	19.30	(19.23-19.37)	17.94	(17.92-17.96)	15.82	(15.78-15.86)	18.74	(18.72-18.76)
Infectious and inflammatory diseases	11.95	(11.73-12.17)	17.89	(17.79-18.00)	14.81	(14.75-14.88)	16.20	(16.13-16.26)	14.06	(14.04-14.08)	13.87	(13.83-13.91)	14.33	(14.31-14.34)
Injury, burns and surgical complications of the eye	2.30	(2.20-2.41)	1.79	(1.75-1.83)	2.48	(2.45-2.50)	2.73	(2.70-2.76)	2.36	(2.35-2.36)	2.26	(2.24-2.27)	2.36	(2.35-2.37)
Orbital and external disease diseases	8.62	(8.43-8.81)	17.00	(16.89-17.10)	12.22	(12.16-12.28)	12.90	(12.84-12.96)	12.92	(12.90-12.94)	11.86	(11.83-11.90)	12.78	(12.77-12.80)
Other retinal disorders	13.21	(12.98-13.44)	15.26	(15.16-15.36)	14.22	(14.15-14.28)	13.35	(13.29-13.41)	15.58	(15.56-15.60)	11.69	(11.65-11.73)	14.65	(14.63-14.67)
Other eye disorders	9.22	(9.03-9.42)	13.07	(12.98-13.17)	10.79	(10.74-10.85)	11.40	(11.34-11.46)	13.45	(13.43-13.47)	10.67	(10.64-10.71)	12.62	(12.61-12.64)
Other visual disturbances	2.38	(2.28-2.49)	3.17	(3.12-3.22)	2.35	(2.32-2.37)	3.09	(3.06-3.12)	3.01	(3.00-3.02)	2.64	(2.62-2.66)	2.91	(2.90-2.92)
Retinal detachment and defects	2.15	(2.05-2.25)	2.38	(2.34-2.43)	2.21	(2.19-2.24)	2.29	(2.26-2.32)	2.47	(2.46-2.47)	1.85	(1.83-1.86)	2.33	(2.32-2.33)
Strabismus and amblyopia	2.77	(2.66-2.89)	2.93	(2.88-2.97)	3.20	(3.17-3.23)	4.42	(4.39-4.46)	3.63	(3.62-3.64)	3.32	(3.30-3.34)	3.58	(3.57-3.59)

Table 14a. Medical Diagnosis Categories by State, Age related macular degeneration

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	6.44	(6.05-6.84)	NC	10.05	(9.97-10.13)
AL	9.29	(9.16-9.41)	ND	13.22	(12.88-13.57)
AR	7.73	(7.59-7.87)	NE	15.31	(15.09-15.52)
AS	8.96	(7.91-10.10)	NH	8.92	(8.67-9.17)
AZ	12.60	(12.49-12.70)	NJ	9.07	(9.00-9.14)
CA	10.55	(10.50-10.61)	NM	8.07	(7.94-8.20)
CO	11.38	(11.26-11.51)	NV	8.43	(8.30-8.56)
CT	11.03	(10.91-11.14)	NY	10.13	(10.07-10.19)
DC	5.81	(5.29-6.37)	OH	13.72	(13.64-13.81)
DE	10.49	(10.28-10.70)	OK	11.96	(11.82-12.11)
FL	16.69	(16.63-16.76)	OR	9.13	(9.03-9.22)
GA	8.89	(8.82-8.97)	PA	13.11	(13.05-13.18)
HI	15.91	(15.64-16.18)	PR	8.65	(8.47-8.83)
IA	13.76	(13.61-13.91)	RI	21.07	(20.46-21.69)
ID	15.34	(15.00-15.69)	SC	10.06	(9.95-10.17)
IL	10.49	(10.42-10.57)	SD	19.15	(18.77-19.53)
IN	11.97	(11.87-12.08)	TN	12.06	(11.94-12.17)
KS	9.14	(9.03-9.25)	TX	11.01	(10.96-11.06)
KY	11.56	(11.43-11.70)	UT	9.28	(9.15-9.42)
LA	9.82	(9.69-9.96)	VA	9.71	(9.63-9.79)
MA	8.04	(7.96-8.12)	VI	3.75	(3.14-4.44)
MD	9.94	(9.85-10.04)	VT	11.77	(11.28-12.28)
ME	13.79	(13.58-13.99)	WA	11.83	(11.74-11.93)
MI	13.17	(13.08-13.26)	WI	11.76	(11.58-11.94)
MN	10.50	(10.40-10.60)	WV	15.63	(15.38-15.89)
MO	11.87	(11.76-11.98)	WY	13.76	(13.27-14.27)
MP	1.20	(1.00-1.43)	XX	19.34	(19.03-19.65)
MS	10.98	(10.81-11.15)	US	11.34	(11.33-11.36)
MT	13.24	(12.76-13.74)			

Table 14b.Medical Diagnosis Categories by State, Blindness and low vision

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	0.17	(0.11-0.25)	NC	0.18	(0.17-0.19)
AL	0.11	(0.10-0.13)	ND	0.24	(0.20-0.30)
AR	0.20	(0.18-0.22)	NE	0.07	(0.06-0.09)
AS	0.11	(0.02-0.32)	NH	0.17	(0.13-0.21)
AZ	0.14	(0.13-0.15)	NJ	0.13	(0.12-0.13)
CA	0.20	(0.20-0.21)	NM	0.16	(0.14-0.18)
CO	0.06	(0.05-0.07)	NV	0.20	(0.18-0.22)
CT	0.21	(0.19-0.23)	NY	0.10	(0.10-0.11)
DC	1.80	(1.51-2.13)	OH	0.30	(0.29-0.32)
DE	0.28	(0.25-0.32)	OK	0.18	(0.16-0.20)
FL	0.33	(0.32-0.34)	OR	0.25	(0.24-0.27)
GA	0.22	(0.20-0.23)	PA	0.25	(0.24-0.26)
HI	0.21	(0.18-0.24)	PR	0.12	(0.10-0.14)
IA	0.09	(0.08-0.11)	RI	0.75	(0.63-0.89)
ID	0.10	(0.07-0.14)	SC	0.13	(0.12-0.14)
IL	0.10	(0.10-0.11)	SD	0.44	(0.38-0.51)
IN	0.25	(0.24-0.27)	TN	0.18	(0.17-0.20)
KS	0.14	(0.13-0.16)	TX	0.18	(0.17-0.19)
KY	0.19	(0.17-0.21)	UT	0.13	(0.12-0.15)
LA	0.14	(0.13-0.16)	VA	0.23	(0.21-0.24)
MA	0.22	(0.20-0.23)	VI	0.46	(0.27-0.75)
MD	0.17	(0.16-0.19)	VT	0.33	(0.25-0.43)
ME	0.22	(0.20-0.26)	WA	0.26	(0.25-0.28)
MI	0.14	(0.14-0.15)	WI	0.17	(0.15-0.19)
MN	0.44	(0.42-0.47)	WV	0.27	(0.24-0.31)
MO	0.08	(0.07-0.09)	WY	0.10	(0.06-0.16)
MP	0.21	(0.13-0.32)	XX	0.19	(0.16-0.23)
MS	0.17	(0.14-0.19)	US	0.20	(0.19-0.20)
MT	0.03	(0.01-0.06)			

Table 14c. Medical Diagnosis Categories by State, Cancer and neoplasms of the eye diseases

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	1.77	(1.57-1.99)	NC	2.05	(2.01-2.08)
AL	1.12	(1.07-1.16)	ND	1.24	(1.13-1.36)
AR	1.11	(1.06-1.17)	NE	2.36	(2.27-2.45)
AS	0.00	(0.00-0.14)	NH	1.94	(1.82-2.07)
AZ	1.39	(1.36-1.43)	NJ	2.06	(2.03-2.09)
CA	1.16	(1.14-1.18)	NM	1.31	(1.25-1.36)
CO	1.81	(1.76-1.86)	NV	1.47	(1.42-1.53)
CT	2.67	(2.61-2.73)	NY	1.55	(1.53-1.58)
DC	0.75	(0.56-0.97)	OH	1.58	(1.55-1.61)
DE	0.69	(0.63-0.75)	OK	1.38	(1.32-1.43)
FL	1.91	(1.88-1.93)	OR	1.57	(1.53-1.61)
GA	1.14	(1.11-1.16)	PA	2.07	(2.04-2.10)
HI	0.40	(0.35-0.45)	PR	0.16	(0.14-0.19)
IA	2.59	(2.52-2.65)	RI	2.60	(2.37-2.85)
ID	1.45	(1.34-1.57)	SC	1.91	(1.86-1.96)
IL	1.14	(1.12-1.17)	SD	2.17	(2.03-2.32)
IN	1.90	(1.86-1.95)	TN	1.53	(1.49-1.58)
KS	1.33	(1.28-1.37)	TX	1.36	(1.34-1.38)
KY	1.85	(1.80-1.91)	UT	0.79	(0.75-0.83)
LA	1.51	(1.46-1.56)	VA	1.77	(1.73-1.80)
MA	2.04	(2.00-2.08)	VI	0.09	(0.02-0.25)
MD	1.08	(1.05-1.11)	VT	3.65	(3.37-3.95)
ME	1.30	(1.23-1.37)	WA	1.84	(1.80-1.89)
MI	1.51	(1.48-1.54)	WI	2.36	(2.27-2.44)
MN	1.61	(1.57-1.65)	WV	2.76	(2.64-2.88)
MO	2.00	(1.95-2.05)	WY	2.15	(1.95-2.37)
MP	0.41	(0.30-0.55)	XX	0.44	(0.39-0.49)
MS	1.28	(1.22-1.34)	US	1.61	(1.61-1.62)
MT	2.12	(1.92-2.34)			

Table 14d.Medical Diagnosis Categories by State, Cataracts

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	43.68	(42.89-44.47)	NC	44.25	(44.12-44.38)
AL	45.97	(45.76-46.18)	ND	49.42	(48.91-49.93)
AR	40.22	(39.97-40.47)	NE	55.34	(55.04-55.63)
AS	67.09	(65.28-68.86)	NH	36.41	(35.99-36.84)
AZ	49.88	(49.73-50.03)	NJ	37.89	(37.78-38.01)
CA	42.77	(42.67-42.86)	NM	41.28	(41.04-41.52)
CO	38.74	(38.56-38.93)	NV	48.01	(47.78-48.24)
CT	45.14	(44.95-45.33)	NY	42.04	(41.95-42.14)
DC	50.33	(49.18-51.48)	OH	54.69	(54.57-54.80)
DE	41.50	(41.16-41.84)	OK	46.93	(46.71-47.15)
FL	56.72	(56.63-56.81)	OR	36.86	(36.70-37.02)
GA	46.54	(46.41-46.67)	PA	50.40	(50.30-50.50)
HI	57.01	(56.64-57.37)	PR	32.65	(32.35-32.94)
IA	52.70	(52.49-52.92)	RI	34.57	(33.86-35.29)
ID	58.35	(57.88-58.82)	SC	53.50	(53.32-53.68)
IL	46.53	(46.41-46.64)	SD	67.75	(67.30-68.20)
IN	51.15	(51.00-51.31)	TN	57.79	(57.62-57.97)
KS	36.83	(36.65-37.01)	TX	53.03	(52.95-53.11)
KY	49.57	(49.36-49.79)	UT	36.50	(36.27-36.73)
LA	41.67	(41.45-41.88)	VA	51.77	(51.64-51.91)
MA	36.24	(36.10-36.37)	VI	64.98	(63.36-66.58)
MD	45.07	(44.92-45.23)	VT	30.98	(30.27-31.69)
ME	55.65	(55.35-55.95)	WA	44.70	(44.55-44.85)
MI	59.00	(58.87-59.12)	WI	51.81	(51.52-52.09)
MN	48.10	(47.93-48.26)	WV	61.68	(61.34-62.03)
MO	57.69	(57.52-57.86)	WY	49.82	(49.10-50.54)
MP	13.62	(12.97-14.29)	XX	50.51	(50.11-50.91)
MS	57.32	(57.05-57.59)	US	48.03	(48.01-48.06)
MT	58.52	(57.81-59.23)			

Table 14e. Medical Diagnosis Categories by State, Cornea disorders

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	7.61	(7.19-8.04)	NC	5.56	(5.50-5.62)
AL	5.80	(5.70-5.90)	ND	3.83	(3.63-4.03)
AR	3.95	(3.85-4.05)	NE	8.60	(8.43-8.77)
AS	2.89	(2.29-3.59)	NH	3.67	(3.51-3.84)
AZ	5.43	(5.36-5.50)	NJ	5.65	(5.59-5.70)
CA	4.04	(4.00-4.08)	NM	3.66	(3.57-3.75)
CO	3.49	(3.42-3.56)	NV	6.29	(6.18-6.40)
CT	4.12	(4.05-4.20)	NY	5.53	(5.49-5.58)
DC	5.99	(5.46-6.56)	OH	5.73	(5.68-5.78)
DE	3.48	(3.35-3.61)	OK	5.34	(5.24-5.44)
FL	6.27	(6.23-6.32)	OR	2.97	(2.91-3.02)
GA	4.96	(4.91-5.02)	PA	5.76	(5.71-5.80)
HI	5.31	(5.15-5.48)	PR	3.83	(3.71-3.95)
IA	6.78	(6.67-6.89)	RI	1.31	(1.15-1.50)
ID	7.15	(6.90-7.40)	SC	5.11	(5.03-5.19)
IL	5.51	(5.46-5.57)	SD	9.54	(9.26-9.83)
IN	7.38	(7.29-7.46)	TN	5.68	(5.60-5.77)
KS	4.21	(4.14-4.29)	TX	5.99	(5.95-6.02)
KY	5.36	(5.26-5.46)	UT	5.03	(4.92-5.13)
LA	4.91	(4.82-5.01)	VA	6.00	(5.93-6.06)
MA	4.38	(4.32-4.44)	VI	8.86	(7.93-9.86)
MD	5.69	(5.61-5.76)	VT	2.76	(2.52-3.03)
ME	3.95	(3.83-4.07)	WA	5.13	(5.07-5.20)
MI	5.94	(5.88-6.00)	WI	6.19	(6.05-6.32)
MN	5.80	(5.73-5.88)	WV	4.85	(4.70-5.00)
MO	5.88	(5.80-5.97)	WY	2.98	(2.74-3.23)
MP	2.50	(2.21-2.82)	XX	3.11	(2.98-3.25)
MS	7.05	(6.92-7.19)	US	5.41	(5.40-5.42)
MT	5.35	(5.03-5.68)			

Table 14f. Medical Diagnosis Categories by State, Diabetic eye diseases

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	3.34	(3.06-3.63)	NC	5.67	(5.61-5.73)
AL	5.08	(4.99-5.18)	ND	3.54	(3.36-3.73)
AR	4.03	(3.93-4.13)	NE	6.03	(5.89-6.17)
AS	4.44	(3.70-5.29)	NH	3.46	(3.30-3.63)
AZ	5.13	(5.07-5.20)	NJ	4.34	(4.30-4.39)
CA	5.84	(5.79-5.88)	NM	3.46	(3.37-3.55)
CO	4.53	(4.45-4.61)	NV	4.86	(4.76-4.96)
CT	4.95	(4.87-5.03)	NY	5.32	(5.28-5.36)
DC	4.20	(3.75-4.68)	OH	6.62	(6.56-6.67)
DE	3.25	(3.13-3.38)	OK	5.57	(5.47-5.67)
FL	5.68	(5.64-5.72)	OR	3.95	(3.88-4.01)
GA	5.62	(5.56-5.67)	PA	5.70	(5.66-5.75)
HI	8.34	(8.14-8.54)	PR	10.98	(10.78-11.18)
IA	4.77	(4.68-4.86)	RI	6.83	(6.45-7.22)
ID	5.66	(5.44-5.88)	SC	5.89	(5.81-5.98)
IL	5.28	(5.23-5.34)	SD	6.38	(6.15-6.62)
IN	5.40	(5.33-5.47)	TN	6.08	(6.00-6.17)
KS	4.17	(4.09-4.24)	TX	7.33	(7.29-7.37)
KY	6.41	(6.31-6.52)	UT	3.15	(3.06-3.23)
LA	5.87	(5.77-5.97)	VA	5.27	(5.21-5.33)
MA	3.24	(3.19-3.29)	VI	10.16	(9.17-11.22)
MD	5.63	(5.56-5.70)	VT	4.77	(4.45-5.11)
ME	7.50	(7.34-7.66)	WA	4.80	(4.73-4.87)
MI	6.11	(6.05-6.17)	WI	4.31	(4.19-4.42)
MN	3.72	(3.66-3.78)	WV	9.24	(9.04-9.45)
MO	4.86	(4.78-4.93)	WY	4.04	(3.76-4.33)
MP	6.99	(6.51-7.49)	XX	12.08	(11.83-12.34)
MS	7.07	(6.93-7.21)	US	5.54	(5.52-5.55)
MT	4.06	(3.78-4.35)			

Table 14g.Medical Diagnosis Categories by State, Disorders of optic nerve and visual pathways

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	1.61	(1.41-1.82)	NC	1.84	(1.80-1.87)
AL	2.35	(2.29-2.42)	ND	1.29	(1.17-1.41)
AR	1.39	(1.33-1.46)	NE	3.95	(3.84-4.07)
AS	1.07	(0.72-1.54)	NH	1.19	(1.10-1.29)
AZ	1.78	(1.74-1.82)	NJ	2.80	(2.76-2.84)
CA	1.81	(1.78-1.83)	NM	1.81	(1.75-1.88)
CO	0.86	(0.82-0.89)	NV	1.59	(1.53-1.65)
CT	2.39	(2.33-2.44)	NY	2.73	(2.70-2.76)
DC	3.97	(3.54-4.44)	OH	2.05	(2.02-2.08)
DE	1.27	(1.19-1.35)	OK	1.27	(1.22-1.32)
FL	2.13	(2.11-2.16)	OR	0.86	(0.83-0.89)
GA	1.88	(1.84-1.91)	PA	2.02	(1.99-2.05)
HI	1.23	(1.15-1.31)	PR	2.77	(2.67-2.88)
IA	1.92	(1.86-1.98)	RI	0.76	(0.64-0.91)
ID	1.47	(1.35-1.59)	SC	1.59	(1.55-1.64)
IL	2.78	(2.75-2.82)	SD	2.63	(2.48-2.79)
IN	2.38	(2.33-2.43)	TN	2.48	(2.42-2.53)
KS	1.22	(1.18-1.26)	TX	2.32	(2.30-2.35)
KY	2.16	(2.09-2.22)	UT	1.32	(1.26-1.37)
LA	2.80	(2.73-2.87)	VA	1.86	(1.82-1.89)
MA	1.21	(1.18-1.24)	VI	1.63	(1.23-2.11)
MD	2.00	(1.96-2.04)	VT	1.89	(1.69-2.12)
ME	2.33	(2.24-2.42)	WA	1.18	(1.14-1.21)
MI	2.03	(2.00-2.07)	WI	1.90	(1.83-1.98)
MN	1.10	(1.06-1.13)	WV	1.42	(1.34-1.51)
MO	3.79	(3.72-3.86)	WY	0.88	(0.75-1.02)
MP	0.64	(0.49-0.81)	XX	2.14	(2.02-2.25)
MS	1.95	(1.87-2.02)	US	2.04	(2.04-2.05)
MT	1.32	(1.16-1.50)			

Table 14h. Medical Diagnosis Categories by State, Refraction and accommodation

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	26.89	(26.19-27.60)	NC	25.60	(25.48-25.72)
AL	14.16	(14.02-14.31)	ND	32.48	(32.00-32.96)
AR	21.97	(21.76-22.19)	NE	19.54	(19.31-19.78)
AS	48.46	(46.56-50.37)	NH	40.69	(40.26-41.13)
AZ	10.21	(10.12-10.30)	NJ	21.34	(21.25-21.44)
CA	19.75	(19.68-19.82)	NM	7.81	(7.68-7.94)
CO	17.83	(17.69-17.98)	NV	7.72	(7.59-7.84)
CT	19.60	(19.45-19.74)	NY	15.80	(15.73-15.88)
DC	39.63	(38.51-40.75)	OH	23.80	(23.70-23.90)
DE	19.62	(19.35-19.89)	OK	7.86	(7.74-7.98)
FL	14.16	(14.10-14.22)	OR	24.38	(24.24-24.52)
GA	18.53	(18.43-18.63)	PA	19.28	(19.20-19.36)
HI	14.24	(13.99-14.50)	PR	17.67	(17.43-17.91)
IA	20.75	(20.57-20.92)	RI	17.56	(16.99-18.14)
ID	14.88	(14.54-15.22)	SC	16.66	(16.53-16.80)
IL	15.03	(14.95-15.12)	SD	25.45	(25.03-25.87)
IN	28.07	(27.93-28.21)	TN	16.04	(15.91-16.17)
KS	27.12	(26.95-27.29)	TX	16.87	(16.81-16.93)
KY	22.33	(22.15-22.51)	UT	28.00	(27.79-28.21)
LA	17.63	(17.47-17.80)	VA	21.91	(21.80-22.02)
MA	29.32	(29.20-29.45)	VI	15.59	(14.40-16.85)
MD	19.18	(19.06-19.30)	VT	15.65	(15.10-16.22)
ME	13.65	(13.44-13.86)	WA	27.81	(27.68-27.95)
MI	20.95	(20.85-21.06)	WI	27.42	(27.17-27.67)
MN	34.15	(34.00-34.31)	WV	5.74	(5.58-5.90)
MO	9.80	(9.69-9.90)	WY	12.64	(12.16-13.12)
MP	18.99	(18.24-19.75)	XX	10.66	(10.42-10.91)
MS	21.64	(21.42-21.86)	US	19.37	(19.36-19.39)
MT	13.68	(13.19-14.18)			

Table 14i. Medical Diagnosis Categories by State, Glaucoma

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	13.56	(13.02-14.11)	NC	15.38	(15.28-15.48)
AL	15.53	(15.38-15.68)	ND	16.23	(15.85-16.60)
AR	11.56	(11.40-11.73)	NE	19.34	(19.10-19.57)
AS	17.85	(16.42-19.34)	NH	17.90	(17.57-18.24)
AZ	19.73	(19.61-19.85)	NJ	19.62	(19.53-19.72)
CA	18.04	(17.97-18.12)	NM	13.44	(13.27-13.61)
CO	11.33	(11.21-11.45)	NV	25.23	(25.03-25.44)
CT	19.60	(19.45-19.75)	NY	22.17	(22.09-22.25)
DC	28.62	(27.59-29.67)	OH	17.16	(17.07-17.25)
DE	14.87	(14.63-15.12)	OK	17.35	(17.18-17.52)
FL	24.23	(24.15-24.31)	OR	12.93	(12.82-13.04)
GA	18.82	(18.72-18.92)	PA	19.11	(19.03-19.19)
HI	31.64	(31.30-31.98)	PR	21.46	(21.20-21.72)
IA	15.15	(14.99-15.30)	RI	15.07	(14.54-15.61)
ID	12.96	(12.64-13.28)	SC	20.01	(19.86-20.15)
IL	19.55	(19.45-19.64)	SD	23.07	(22.67-23.48)
IN	18.14	(18.01-18.26)	TN	17.87	(17.74-18.01)
KS	11.67	(11.55-11.79)	TX	19.55	(19.48-19.61)
KY	15.36	(15.21-15.52)	UT	9.48	(9.34-9.62)
LA	12.89	(12.75-13.04)	VA	20.53	(20.42-20.64)
MA	16.03	(15.93-16.14)	VI	46.66	(44.98-48.34)
MD	23.34	(23.21-23.47)	VT	22.27	(21.63-22.91)
ME	18.22	(17.99-18.45)	WA	19.44	(19.32-19.57)
MI	21.27	(21.17-21.37)	WI	18.03	(17.82-18.25)
MN	15.57	(15.45-15.69)	WV	21.44	(21.15-21.73)
MO	17.47	(17.34-17.60)	WY	14.19	(13.69-14.70)
MP	7.14	(6.66-7.65)	XX	16.81	(16.52-17.11)
MS	19.49	(19.28-19.71)	US	18.74	(18.72-18.76)
MT	16.20	(15.67-16.73)			

Table 14j. Medical Diagnosis Categories by State, Infectious and inflammatory diseases

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	7.46	(7.05-7.89)	NC	14.58	(14.48-14.67)
AL	12.49	(12.35-12.63)	ND	9.37	(9.07-9.67)
AR	9.58	(9.43-9.74)	NE	13.80	(13.60-14.01)
AS	18.07	(16.63-19.57)	NH	15.02	(14.71-15.34)
AZ	15.64	(15.53-15.75)	NJ	18.46	(18.37-18.55)
CA	13.14	(13.08-13.20)	NM	9.48	(9.33-9.62)
CO	9.42	(9.31-9.53)	NV	13.05	(12.89-13.20)
CT	11.80	(11.68-11.93)	NY	18.70	(18.62-18.77)
DC	19.46	(18.56-20.38)	OH	13.98	(13.90-14.06)
DE	11.15	(10.94-11.37)	OK	10.90	(10.76-11.04)
FL	16.67	(16.60-16.74)	OR	9.18	(9.09-9.28)
GA	13.92	(13.83-14.01)	PA	13.14	(13.07-13.21)
HI	26.46	(26.14-26.78)	PR	14.09	(13.87-14.31)
IA	11.20	(11.06-11.33)	RI	5.56	(5.22-5.91)
ID	9.88	(9.60-10.17)	SC	16.49	(16.36-16.63)
IL	17.08	(16.99-17.17)	SD	19.23	(18.86-19.61)
IN	13.29	(13.19-13.40)	TN	13.00	(12.88-13.12)
KS	7.71	(7.61-7.81)	TX	15.71	(15.65-15.77)
KY	12.35	(12.20-12.49)	UT	13.98	(13.81-14.14)
LA	14.68	(14.53-14.84)	VA	17.15	(17.05-17.25)
MA	14.93	(14.83-15.03)	VI	27.21	(25.73-28.73)
MD	18.92	(18.80-19.04)	VT	9.87	(9.42-10.34)
ME	10.04	(9.86-10.23)	WA	13.67	(13.57-13.78)
MI	12.93	(12.85-13.02)	WI	14.04	(13.84-14.23)
MN	6.35	(6.27-6.43)	WV	10.34	(10.13-10.56)
MO	11.07	(10.96-11.18)	WY	11.25	(10.80-11.72)
MP	10.43	(9.85-11.03)	XX	10.91	(10.67-11.16)
MS	13.93	(13.74-14.12)	US	14.33	(14.31-14.34)
MT	22.32	(21.73-22.93)			

Table 14k. Medical Diagnosis Categories by State, Injury, burns and surgical complications of the eye

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	1.66	(1.46-1.87)	NC	1.92	(1.88-1.95)
AL	2.37	(2.31-2.44)	ND	2.16	(2.02-2.32)
AR	1.84	(1.77-1.91)	NE	2.99	(2.89-3.09)
AS	1.11	(0.75-1.58)	NH	2.41	(2.28-2.55)
AZ	2.41	(2.36-2.46)	NJ	2.81	(2.77-2.85)
CA	1.91	(1.88-1.93)	NM	2.71	(2.63-2.79)
CO	4.20	(4.12-4.28)	NV	2.41	(2.34-2.49)
CT	2.43	(2.37-2.48)	NY	2.58	(2.55-2.61)
DC	2.13	(1.81-2.48)	OH	2.14	(2.11-2.18)
DE	1.58	(1.50-1.67)	OK	1.88	(1.82-1.94)
FL	2.36	(2.33-2.38)	OR	1.54	(1.50-1.58)
GA	2.67	(2.63-2.71)	PA	2.43	(2.40-2.46)
HI	2.15	(2.05-2.26)	PR	1.08	(1.02-1.15)
IA	2.59	(2.52-2.66)	RI	2.38	(2.16-2.62)
ID	2.59	(2.44-2.74)	SC	2.35	(2.30-2.41)
IL	2.64	(2.60-2.67)	SD	3.23	(3.06-3.40)
IN	2.51	(2.46-2.56)	TN	2.22	(2.16-2.27)
KS	1.90	(1.85-1.96)	TX	2.46	(2.44-2.49)
KY	2.15	(2.08-2.21)	UT	2.34	(2.27-2.42)
LA	2.42	(2.36-2.49)	VA	2.18	(2.14-2.22)
MA	2.00	(1.96-2.04)	VI	2.64	(2.13-3.23)
MD	2.28	(2.23-2.33)	VT	1.89	(1.68-2.11)
ME	2.41	(2.32-2.51)	WA	2.62	(2.57-2.66)
MI	2.32	(2.28-2.36)	WI	3.21	(3.11-3.31)
MN	2.45	(2.40-2.50)	WV	2.23	(2.13-2.34)
MO	2.07	(2.02-2.12)	WY	1.19	(1.04-1.36)
MP	2.31	(2.03-2.62)	XX	2.12	(2.01-2.24)
MS	2.46	(2.37-2.54)	US	2.36	(2.35-2.37)
MT	3.03	(2.79-3.28)			

Table 14I. Medical Diagnosis Categories by State, Orbital and external disease diseases

State		Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK		7.16	(6.75-7.58)	NC	11.89	(11.80-11.97)
AL		9.30	(9.18-9.42)	ND	9.01	(8.72-9.31)
AR		11.44	(11.28-11.61)	NE	13.78	(13.58-13.99)
AS		30.58	(28.85-32.36)	NH	10.89	(10.62-11.17)
AZ		11.36	(11.26-11.46)	NJ	15.38	(15.29-15.46)
CA		9.67	(9.62-9.73)	NM	8.56	(8.42-8.69)
CO		4.05	(3.97-4.12)	NV	15.02	(14.85-15.18)
CT		10.79	(10.67-10.91)	NY	15.50	(15.43-15.57)
DC		16.07	(15.24-16.93)	OH	11.58	(11.51-11.66)
DE		21.82	(21.54-22.10)	OK	9.94	(9.81-10.08)
FL		17.15	(17.08-17.22)	OR	7.13	(7.05-7.22)
GA		11.42	(11.34-11.50)	PA	12.70	(12.63-12.76)
HI		30.61	(30.28-30.95)	PR	15.73	(15.50-15.96)
IA		6.84	(6.73-6.95)	RI	5.36	(5.03-5.71)
ID		16.27	(15.92-16.63)	SC	10.78	(10.66-10.89)
IL		14.43	(14.34-14.51)	SD	30.37	(29.93-30.81)
IN		13.52	(13.42-13.63)	TN	14.47	(14.34-14.59)
KS		5.73	(5.64-5.82)	TX	14.83	(14.78-14.89)
KY		9.51	(9.38-9.64)	UT	10.65	(10.50-10.80)
LA		11.25	(11.11-11.39)	VA	20.63	(20.52-20.73)
MA		11.03	(10.94-11.12)	VI	9.32	(8.37-10.34)
MD		16.63	(16.51-16.74)	VT	8.53	(8.11-8.97)
ME		8.70	(8.53-8.87)	WA	9.66	(9.57-9.75)
MI		14.84	(14.75-14.93)	WI	12.89	(12.71-13.08)
MN		5.43	(5.35-5.50)	WV	10.78	(10.56-11.00)
MO		8.98	(8.88-9.08)	WY	9.74	(9.32-10.18)
MP		8.05	(7.53-8.58)	XX	11.38	(11.13-11.63)
MS		14.87	(14.67-15.06)	US	12.78	(12.77-12.80)
MT		9.63	(9.21-10.06)			

Table 14m. Medical Diagnosis Categories by State, Other retinal disorders

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	14.19	(13.64-14.75)	NC	14.13	(14.03-14.22)
AL	12.35	(12.21-12.48)	ND	15.30	(14.93-15.67)
AR	10.74	(10.58-10.90)	NE	18.61	(18.38-18.84)
AS	13.07	(11.82-14.40)	NH	10.97	(10.70-11.25)
AZ	13.67	(13.56-13.77)	NJ	12.66	(12.58-12.74)
CA	13.70	(13.63-13.76)	NM	8.71	(8.57-8.84)
CO	14.02	(13.89-14.15)	NV	10.35	(10.21-10.49)
CT	17.28	(17.14-17.42)	NY	14.60	(14.53-14.67)
DC	14.77	(13.97-15.60)	OH	18.05	(17.96-18.14)
DE	11.18	(10.96-11.40)	OK	14.28	(14.12-14.43)
FL	19.04	(18.97-19.11)	OR	9.91	(9.81-10.01)
GA	12.83	(12.75-12.92)	PA	16.33	(16.25-16.40)
HI	16.39	(16.12-16.67)	PR	10.14	(9.95-10.33)
IA	14.40	(14.25-14.56)	RI	14.75	(14.22-15.29)
ID	14.59	(14.25-14.93)	SC	14.14	(14.01-14.26)
IL	13.22	(13.14-13.31)	SD	19.16	(18.78-19.54)
IN	16.16	(16.04-16.28)	TN	15.12	(14.99-15.25)
KS	12.19	(12.07-12.31)	TX	15.65	(15.60-15.71)
KY	15.51	(15.35-15.67)	UT	9.77	(9.63-9.92)
LA	14.28	(14.13-14.43)	VA	12.86	(12.77-12.95)
MA	10.45	(10.37-10.54)	VI	13.07	(11.96-14.24)
MD	15.51	(15.40-15.62)	VT	17.08	(16.51-17.67)
ME	21.81	(21.56-22.06)	WA	14.53	(14.42-14.64)
MI	16.21	(16.11-16.30)	WI	13.20	(13.01-13.39)
MN	13.71	(13.60-13.83)	WV	22.11	(21.82-22.40)
MO	13.49	(13.37-13.61)	WY	16.81	(16.27-17.36)
MP	4.54	(4.15-4.96)	XX	30.67	(30.31-31.04)
MS	14.27	(14.08-14.46)	US	14.65	(14.63-14.67)
MT	12.87	(12.40-13.36)			

Table 14n. Medical Diagnosis Categories by State, Other eye disorders

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	6.23	(5.85-6.63)	NC	10.87	(10.78-10.95)
AL	9.77	(9.65-9.90)	ND	5.94	(5.70-6.19)
AR	7.63	(7.49-7.77)	NE	15.64	(15.43-15.86)
AS	24.58	(22.97-26.25)	NH	6.19	(5.98-6.40)
AZ	9.60	(9.51-9.69)	NJ	14.63	(14.55-14.71)
CA	9.08	(9.02-9.13)	NM	7.05	(6.92-7.17)
CO	5.63	(5.54-5.72)	NV	10.47	(10.33-10.62)
CT	11.96	(11.84-12.09)	NY	16.12	(16.05-16.19)
DC	18.53	(17.64-19.43)	OH	14.38	(14.29-14.46)
DE	16.69	(16.44-16.95)	OK	6.09	(5.98-6.19)
FL	17.73	(17.66-17.80)	OR	6.68	(6.60-6.76)
GA	10.35	(10.28-10.43)	PA	16.17	(16.10-16.25)
HI	24.22	(23.90-24.53)	PR	15.05	(14.82-15.27)
IA	5.28	(5.18-5.38)	RI	5.30	(4.97-5.65)
ID	7.49	(7.24-7.75)	SC	12.62	(12.50-12.74)
IL	13.24	(13.16-13.32)	SD	24.53	(24.12-24.94)
IN	13.04	(12.93-13.15)	TN	15.02	(14.90-15.15)
KS	6.50	(6.41-6.60)	TX	14.26	(14.21-14.32)
KY	10.67	(10.53-10.80)	UT	9.04	(8.90-9.17)
LA	10.95	(10.81-11.08)	VA	15.07	(14.97-15.16)
MA	10.79	(10.70-10.88)	VI	13.21	(12.10-14.39)
MD	13.35	(13.24-13.46)	VT	8.17	(7.75-8.60)
ME	14.86	(14.65-15.08)	WA	10.15	(10.05-10.24)
MI	14.79	(14.70-14.89)	WI	12.21	(12.03-12.40)
MN	8.60	(8.51-8.70)	WV	13.21	(12.97-13.45)
MO	9.00	(8.91-9.10)	WY	6.57	(6.22-6.94)
MP	3.89	(3.53-4.28)	XX	32.77	(32.40-33.14)
MS	11.89	(11.72-12.07)	US	12.62	(12.61-12.64)
MT	7.05	(6.68-7.42)			

Table 14o.Medical Diagnosis Categories by State, Other visual disturbances

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	3.41	(3.13-3.71)	NC	2.82	(2.78-2.87)
AL	2.07	(2.01-2.13)	ND	1.07	(0.97-1.18)
AR	1.94	(1.87-2.01)	NE	2.38	(2.29-2.47)
AS	2.41	(1.86-3.06)	NH	2.28	(2.15-2.41)
AZ	1.82	(1.78-1.86)	NJ	3.04	(3.00-3.08)
CA	2.22	(2.20-2.25)	NM	1.44	(1.38-1.49)
CO	1.20	(1.16-1.24)	NV	2.69	(2.62-2.77)
CT	2.59	(2.53-2.65)	NY	3.30	(3.27-3.34)
DC	3.04	(2.66-3.45)	OH	3.54	(3.50-3.59)
DE	3.80	(3.67-3.93)	OK	1.41	(1.36-1.46)
FL	3.13	(3.10-3.17)	OR	2.49	(2.44-2.54)
GA	2.48	(2.44-2.52)	PA	2.99	(2.96-3.03)
HI	13.43	(13.18-13.68)	PR	2.86	(2.76-2.97)
IA	1.95	(1.89-2.01)	RI	0.90	(0.77-1.06)
ID	1.77	(1.65-1.90)	SC	2.21	(2.16-2.26)
IL	4.03	(3.98-4.08)	SD	3.27	(3.10-3.44)
IN	4.01	(3.95-4.08)	TN	2.11	(2.05-2.16)
KS	1.80	(1.75-1.85)	TX	3.48	(3.45-3.51)
KY	2.57	(2.50-2.64)	UT	2.20	(2.13-2.27)
LA	2.06	(2.00-2.13)	VA	2.71	(2.67-2.76)
MA	4.27	(4.21-4.33)	VI	7.64	(6.77-8.57)
MD	2.31	(2.27-2.36)	VT	3.02	(2.76-3.30)
ME	3.51	(3.40-3.62)	WA	2.97	(2.92-3.02)
MI	2.91	(2.86-2.95)	WI	2.89	(2.80-2.98)
MN	3.63	(3.57-3.70)	WV	1.92	(1.82-2.01)
MO	2.50	(2.44-2.55)	WY	1.38	(1.22-1.56)
MP	1.12	(0.93-1.34)	XX	6.39	(6.20-6.59)
MS	1.85	(1.78-1.93)	US	2.91	(2.90-2.92)
MT	1.98	(1.78-2.19)			

Table 14p.Medical Diagnosis Categories by State, Retinal detachment and defects

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	1.48	(1.30-1.69)	NC	1.88	(1.84-1.91)
AL	1.76	(1.71-1.82)	ND	2.57	(2.41-2.73)
AR	1.55	(1.48-1.61)	NE	3.05	(2.95-3.15)
AS	4.37	(3.63-5.21)	NH	1.45	(1.34-1.56)
AZ	2.06	(2.02-2.11)	NJ	2.10	(2.07-2.14)
CA	2.36	(2.33-2.39)	NM	0.69	(0.65-0.73)
CO	2.85	(2.79-2.92)	NV	1.37	(1.32-1.43)
CT	3.17	(3.10-3.24)	NY	2.21	(2.18-2.24)
DC	1.63	(1.35-1.94)	OH	2.61	(2.57-2.65)
DE	1.70	(1.62-1.80)	OK	1.99	(1.93-2.06)
FL	2.60	(2.57-2.63)	OR	1.64	(1.60-1.68)
GA	2.23	(2.19-2.27)	PA	2.98	(2.95-3.02)
HI	2.04	(1.93-2.14)	PR	1.61	(1.53-1.69)
IA	1.58	(1.53-1.64)	RI	2.69	(2.45-2.94)
ID	2.60	(2.45-2.76)	SC	2.21	(2.16-2.26)
IL	2.22	(2.18-2.25)	SD	4.50	(4.31-4.71)
IN	2.44	(2.39-2.49)	TN	2.44	(2.38-2.49)
KS	2.08	(2.03-2.14)	TX	2.75	(2.72-2.77)
KY	2.33	(2.26-2.39)	UT	1.64	(1.58-1.70)
LA	2.76	(2.69-2.84)	VA	1.86	(1.82-1.89)
MA	1.48	(1.45-1.52)	VI	1.83	(1.41-2.33)
MD	1.76	(1.72-1.80)	VT	2.79	(2.54-3.05)
ME	4.20	(4.08-4.33)	WA	2.42	(2.37-2.47)
MI	2.71	(2.67-2.75)	WI	2.17	(2.09-2.26)
MN	2.36	(2.31-2.41)	WV	3.03	(2.91-3.16)
MO	1.87	(1.82-1.92)	WY	1.91	(1.72-2.12)
MP	0.68	(0.53-0.85)	XX	8.47	(8.25-8.70)
MS	1.66	(1.59-1.73)	US	2.33	(2.32-2.33)
MT	2.59	(2.37-2.83)			

Table 14q.Medical Diagnosis Categories by State, Strabismus and amblyopia

State	Prevalence	(95% CI)	State	Prevalence	(95% CI)
AK	2.48	(2.24-2.74)	NC	4.86	(4.80-4.92)
AL	3.27	(3.19-3.34)	ND	2.85	(2.68-3.02)
AR	3.20	(3.11-3.29)	NE	3.84	(3.73-3.96)
AS	2.96	(2.36-3.67)	NH	5.64	(5.43-5.84)
AZ	1.92	(1.88-1.96)	NJ	3.12	(3.08-3.16)
CA	2.47	(2.44-2.49)	NM	3.53	(3.44-3.62)
CO	2.17	(2.12-2.23)	NV	2.63	(2.56-2.70)
CT	4.89	(4.81-4.97)	NY	3.60	(3.56-3.64)
DC	3.63	(3.22-4.08)	OH	5.61	(5.55-5.66)
DE	2.05	(1.96-2.15)	OK	2.51	(2.44-2.58)
FL	2.72	(2.69-2.75)	OR	3.09	(3.03-3.14)
GA	3.91	(3.86-3.96)	PA	3.45	(3.41-3.49)
HI	1.90	(1.80-2.00)	PR	1.15	(1.08-1.22)
IA	5.42	(5.32-5.52)	RI	2.00	(1.80-2.22)
ID	2.32	(2.18-2.47)	SC	2.70	(2.64-2.76)
IL	4.45	(4.40-4.50)	SD	5.64	(5.42-5.86)
IN	4.09	(4.02-4.15)	TN	2.83	(2.77-2.89)
KS	3.21	(3.14-3.28)	TX	3.60	(3.57-3.63)
KY	3.47	(3.39-3.55)	UT	3.77	(3.68-3.86)
LA	1.94	(1.88-2.00)	VA	4.87	(4.81-4.93)
MA	4.47	(4.41-4.53)	VI	1.57	(1.18-2.04)
MD	3.25	(3.19-3.30)	VT	10.53	(10.06-11.01)
ME	4.90	(4.77-5.03)	WA	4.65	(4.59-4.72)
MI	3.05	(3.01-3.09)	WI	3.95	(3.84-4.06)
MN	5.25	(5.18-5.33)	WV	4.23	(4.09-4.38)
MO	2.31	(2.26-2.37)	WY	2.15	(1.95-2.37)
MP	2.01	(1.75-2.30)	XX	8.69	(8.47-8.92)
MS	3.27	(3.17-3.36)	US	3.58	(3.57-3.59)
MT	4.06	(3.78-4.36)			

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