

Title: Housing and Eye and Vision Outcomes: A Scoping Review Protocol

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Introduction:

Housing plays a significant role in the development and persistence of health disparities over time. Over the past two decades, rental prices have more than doubled, leading to unprecedented financial strains on individuals and families.¹ By 2020, half of low-income renters allocated over 50% of their income towards rent payments.² Of the five Social Determinants of Health (SDoH) as defined by Healthy People 2030, the Neighborhood and Built Environment domain comprises several risk factors, including pollution, transportation, and housing, which can lead to adverse effects on eye and vision health. Research has provided insight into outcomes for populations that experience housing disparities such as significant health disparities across housing-relevant outcomes. Low-income and racial/ethnic minority neighborhoods predominantly have been disproportionately zoned for undesirable uses and expose residents to hazards like air and noise pollution, traffic, lack of green space, and undesirable amenities.³

While the role of housing as a social determinant of health has been extensively studied, a majority of the research has focused on the quality and safety of housing. However, it is clear that poor housing conditions, such as crowding and mold, correlate with multiple adverse health outcomes, such as the development of asthma, hypertension, cancer, anxiety, and depression.⁴⁻⁶ Additionally, research has shown that increases in rent burden and evictions were associated with elevated rates of mortality.⁷ The three pillars that connect these health outcomes to housing include housing cost, conditions, and consistency. Table 1 describes the three dimensions associated with housing, their meanings⁸, and examples.

Table 1. The Three Pillars of Housing

Pillar	Meaning	Example (s)
Cost	“Housing affordability”	Able to pay for housing without difficulty
Conditions	“Housing quality”	Sustainability of unit’s infrastructure and environmental quality
Consistency	“Residential stability”	Rental agreement or housing policy, Eviction protection

In this scoping review, we sought to understand if and which of the three pillars of housing (cost, conditions, and consistency) impact vision health and eye care. Housing conditions have been linked to eye health and vision outcomes. Understanding these

dynamics is essential to properly assess a patient's social needs, which in turn can inform access to eye care and address vision needs.

Inclusion Criteria:

- Studies that include only adults 18 years of age and older.
- Studies published in peer-reviewed journals.
- Qualitative, quantitative, or mixed-methods studies that evaluated housing in eye care and vision health.
- Exclusion criteria: articles that are reviews, abstracts, case reports, or opinion pieces. We exclusively looked at articles written in English, as we were not able to provide translations of these articles.

Types of participants:

- Adults that are 18 years and older

Concept:

The concept of interest for this scoping review is to understand whether and which of the three pillars of housing (cost, consistency, and conditions) impact vision health and eye care.

Context:

The context of the scoping review will be broad; evidence from the literature pertaining to understanding the impact of housing pillars on eye care and vision health within any contextual setting will be included. The evidence will be limited to that published in English.

Types of evidence sources:

We will include the following study designs to obtain evidence for this scoping review: primary research reports of any study design (qualitative, quantitative, and mixed methods studies). The following will be excluded: dissertations that are not yet published, literature reviews, abstracts, editorials, opinion pieces, and book chapters.

Methods:

The methodology for this scoping review will follow the frameworks proposed by Arksey, O'Malley⁹, Levac, and colleagues¹⁰ using the methods outlined in the JBI Manual for Evidence Synthesis. The scoping review team followed a multi-step, iterative process for developing and refining the search strategy.

Search Strategy

Description of strategy: The review team met with an informationist (KMS) in May 2023 to identify the scoping review's target outcomes. The informationist created a relevant search strategy that was utilized in a selection of potential databases to obtain evidence, search terms, and concepts. The scoping review search strategy identified evidence from primary research articles, including quantitative, qualitative, and mixed methods studies. The databases selected for this scoping review were as follows: Ovid MEDLINE, Embase (ELSEVIER), CINAHL Complete (EBSCO), PsycInfo (EBSCO), Web of Science (SCI-EXPANDED, SSCI, and ESCI), and Scopus (ELSEVIER).

After the team's initial search strategies in PubMed were analyzed and refined, it was determined that Ovid MEDLINE would be the primary database for searching MEDLINE. As the searches were translated across the remaining databases, the review team reviewed search terms and results for each database and provided feedback on the search terms.

The scoping review's final search strategy centers around the main concept of identifying the three housing pillars and associated factors related to vision health and eye care. Publications that were excluded from the review included no primary literature (reviews, abstracts, commentary, unpublished dissertations, and book chapters). The final search was run in May 2023 using EndNote 20 (Clarivate) to manage the citations and remove any duplicate publications.

The complete search strategy that was utilized for Ovid MEDLINE has been included in Supplemental Table 1.

Supplemental strategies:

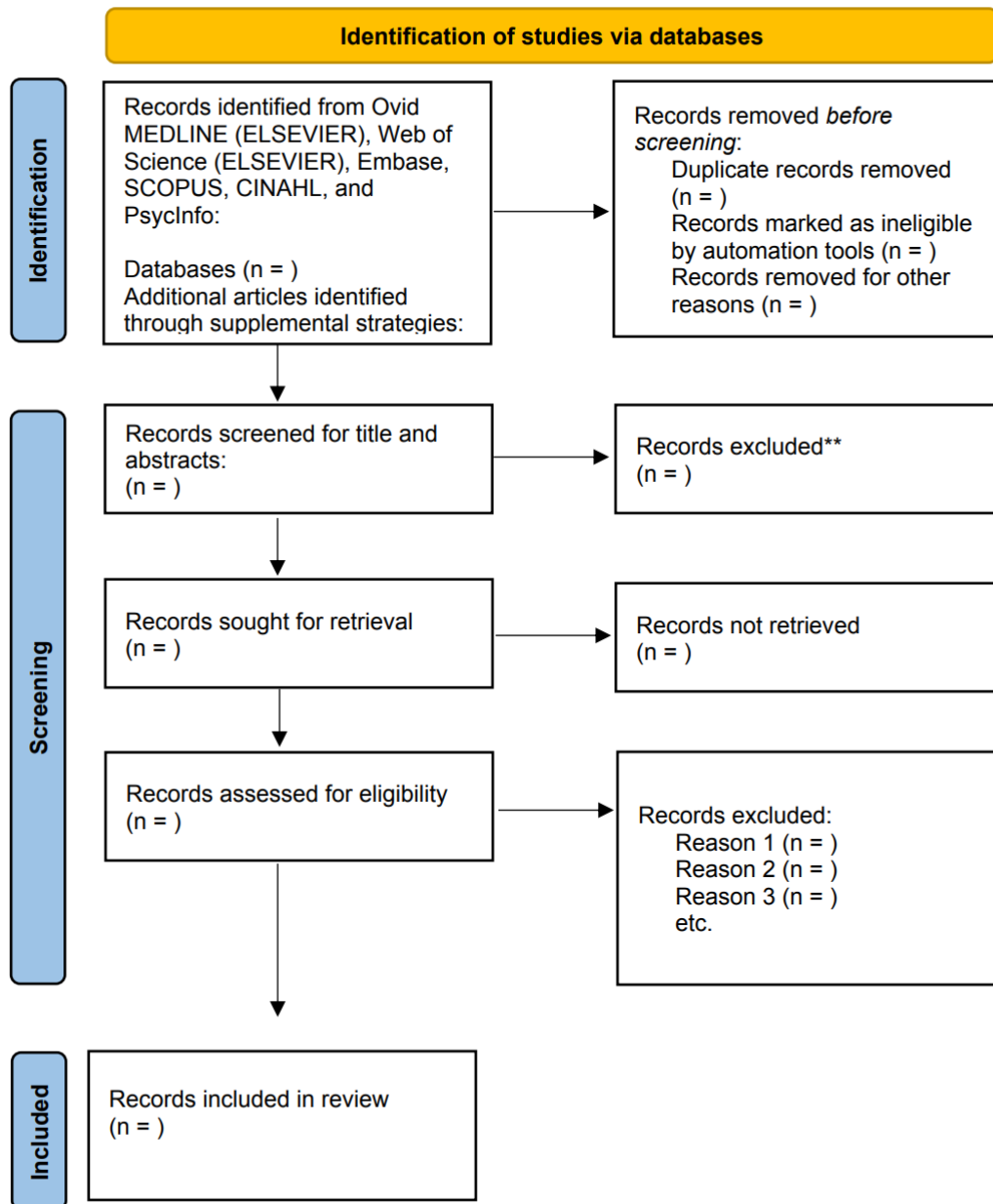
In addition to the primary search, the review team will examine the literature of scoping reviews or systematic reviews and the literature within the primary research articles to identify any additional references.

Source of evidence selection:

The Rayyan-Intelligent Systematic Review program (Rayyan Systems Inc., Cambridge, MA) will be used to review publications, including the pilot phase. Selected scoping review articles will follow the exclusion and inclusion criteria presented above. They will include a review of the title and abstract, preceded by a complete review of the evidence within the manuscript.

Scoping review screeners will complete an initial training by reviewing the protocol developed for this scoping review. Next, screeners will complete a pilot test using a subset (10%) of the total articles identified and pilot screening will commence once 75% of agreement has been reached between the two primary screeners for the pilot test (PMH and MLA or SEP or KE). When completing the screening, at least 2 screeners will review each source at each level (title abstract and full-article review) and disagreements will be reconciled by consensus or by a third screener. In accordance with the PRISMA-ScR statement, a flowchart and narrative description of the evidence selection process will be created as presented in Figure 1.

Figure 1. Review Process



Data extraction/charting: The scoping review data extraction and charting will include the following data from each data source:

- 1) Title
- 2) Author(s)

- 3) Year
- 4) Country (where the source was published or conducted)
- 5) Aims/Purpose of the study
- 6) Location
- 7) Topic of the study (Vision condition or eye care)
- 8) Housing pillar assessed
- 9) Social risk factor assessed
- 10) How findings for source were obtained (interview, survey, electronic medical record, etc.)
- 11) Type of the study (cross-sectional, case-control, cohort, etc.)

This initial list of variables will be used during the pilot portion of the scoping review and refined as necessary. If additional variables are needed during the screening and data extraction process, the data extraction form will be updated accordingly.

Analysis of the evidence: Frequency counts will be used to assess the presence of housing pillars and social risk factors within the pillars identified for vision conditions/eye care. Population demographics, types of diagnoses and other fields of data extracted from evidence will be calculated.

Presentation of the Results: The results of this scoping review will be presented in tables (Table 2 and Table 3). These tables will highlight the identified studies pertaining to social risk factors and eye conditions, frequency and percentage of domain by location (United States vs. International), and the associated social risk factors.

Table 2. Identified publications for social risk factors with Eye Conditions

Author(s)	Name of author(s) on the publication
Year	Year published
Location	Country where the study took place
Study Topic	Vision Health Condition (Type) or Eye Care
Pillars of Housing	Cost Consistency Conditions
Social Risk Factors	Social risk factors associated with housing

Table 3. Domain frequency and percentage by location

Pillar of Housing	Cost Consistency Conditions
Location	United States International
Number of Publications	Number of publications by location

References:

1. Myers D, Park J. A constant quartile mismatch indicator of changing rental affordability in U.S. metropolitan areas, 2000 to 2016. doi: 10.2307/26608016.
2. Bhattarai A., Alcantara C., Van Dam A. The Washington Post; 2022. Rents Are Rising Everywhere.
3. Gomez SL, Shariff-marco S, Derouen M, et al. The impact of neighborhood social and built environment factors across the cancer continuum: Current research, methodological considerations, and future directions. *Cancer*. 2016;121(14):2314. doi: 10.1002/cncr.29345.
4. Social Determinants of Health. Social Determinants of Health - Healthy People 2030. Accessed June 11, 2024. <https://health.gov/healthypeople/priority-areas/social-determinants-health>.
5. Williams AM, Sahel J. Addressing social determinants of vision health. *Ophthalmol Ther*. 2022;11(4):1371. doi: 10.1007/s40123-022-00531-w.
6. Richards GC, Carpenter J, Okpalugo E, Howard DJ, Heneghan C. Assessing housing exposures and interventions that impact healthy cities: A systematic overview of reviews. *Perspect Public Health*. 2023. doi: 10.1177/17579139231180756.
7. Graetz N, Gershenson C, Porter SR, Sandler DH, Lemmerman E, Desmond M. The impacts of rent burden and eviction on mortality in the united states, 2000–2019. *Social Science & Medicine*. 2023;340. doi: 10.1016/j.socscimed.2023.116398.
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9. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology*. 2005;8(1):19-32. doi:10.1080/1364557032000119616
10. Peters, M., Godfrey, C., Mclnerney, P. et al. In Z. Munn & E. Aromataris (Eds.), *JBI Manual for Evidence Synthesis*. <https://doi.org/https://doi.org/10.46658/JBIMES-20-01>

Search Terms:

Search terms used for scoping review on Housing and its impact on eye and vision health outcomes.

PubMed

1. "Eye"[Mesh] OR "Ophthalmology"[Mesh] OR "Optometry"[Mesh] OR "Vision Disorders"[Mesh] OR "Eye Diseases"[Mesh] OR "Visually Impaired Persons"[Mesh] OR "Vision, Ocular"[Mesh] OR "Diagnostic Techniques, Ophthalmological"[Mesh] OR "Ophthalmologic Surgical Procedures"[Mesh] OR "Ophthalmologists"[Mesh] OR "Optometrists"[Mesh] OR "aicardi syndrome"[tiab] OR "amaurosis fugax"[tiab] OR "angioid streaks"[tiab] OR "artificial lens"[tiab] OR "cogan syndrome"[tiab] OR "color perception"[tiab] OR "cone dystrophy"[tiab] OR "duane retraction syndrome"[tiab] OR "ectopia lentis"[tiab] OR "epiretinal membrane"[tiab] OR "familial exudative vitreoretinopathies"[tiab] OR "fluorescein angiography"[tiab] OR "leber congenital amaurosis"[tiab] OR "lens subluxation"[tiab] OR "limbal stem cell deficiency"[tiab] OR "meibomian gland"[tiab] OR "miller fisher syndrome"[tiab] OR "Mucous Membrane Pemphigoid" [tiab] OR "opsoclonus-myoclonus"[tiab] OR "orbital cellulitis"[tiab] OR "orbital disease"[tiab] OR "orbital myositis"[tiab] OR "orbital neoplasm"[tiab] OR "orbital pseudotumor"[tiab] OR "persistent hyperplastic primary vitreous"[tiab] OR "refractive error"[tiab] OR "retrobulbar hemorrhage"[tiab] OR "slit lamp microscopy"[tiab] OR "stargardt disease"[tiab] OR "susac syndrome"[tiab] OR "tolosa-hunt syndrome"[tiab] OR "vitreous detachment"[tiab] OR "vitreous hemorrhage"[tiab] OR "walker-warburg syndrome"[tiab] OR "weill-marchesani syndrome"[tiab] OR aberrometry[tiab] OR amblyopia[tiab] OR aniridia[tiab] OR aniseikonia[tiab] OR anisocoria[tiab] OR anisometropia[tiab] OR anophthalmos[tiab] OR aphakia[tiab] OR asthenopia[tiab] OR astigmatism[tiab] OR blephar*[tiab] OR blind*[tiab] OR cataract*[tiab] OR chalazion[tiab] OR chorioretinopath*[tiab] OR choroid*[tiab] OR coloboma[tiab] OR cone-rod[tiab] OR conjunctiv*[tiab] OR cornea*[tiab] OR dacryocystitis[tiab] OR diplopia[tiab] OR ectropion[tiab] OR electronystagmography[tiab] OR electrooculography[tiab] OR electroretinography[tiab] OR endophthalmitis[tiab] OR enophthalmos[tiab] OR entropion[tiab] OR exophthalmos[tiab] OR fluorophotometry[tiab] OR glaucoma[tiab] OR gonioscopy[tiab] OR hemianopsia[tiab] OR hordeolum[tiab] OR hydrophthalmos[tiab] OR hyperopia[tiab] OR hyphema[tiab] OR iridocorneal[tiab] OR iris[tiab] OR keratiti*[tiab] OR keratoconus[tiab] OR lacrimal[tiab] OR macula*[tiab] OR microphthalmos[tiab] OR miosis[tiab] OR mydriasis[tiab] OR myopia[tiab] OR nystagmus[tiab] OR ocular*[tiab] OR ophthalmodynamometry[tiab] OR ophthalmolog*[tiab] OR ophthalmopathy[tiab] OR ophthalmoplegia[tiab] OR ophthalmoscopy[tiab] OR optic[tiab] OR optometry [tiab] OR papilledema[tiab] OR photophobia[tiab] OR pinguecula[tiab] OR presbyopia[tiab] OR pterygium[tiab] OR pupil[tiab] OR retina*[tiab] OR retinitis[tiab] OR retinoblastoma[tiab] OR retinopath*[tiab] OR retinoscopy[tiab] OR sclera*[tiab] OR scleritis[tiab] OR scotoma[tiab] OR strabismus[tiab] OR trachoma[tiab] OR trichiasis[tiab] OR uveal*[tiab] OR uveitis[tiab] OR visual[tiab] OR vitreoretinopathy[tiab] OR xerophthalmia[tiab] OR Eye[title] OR eyes[title] OR vision[title]

2. "Housing Instability"[Mesh] OR "Ill-Housed Persons"[Mesh] OR "Residential Facilities"[Mesh] OR "Housing"[Mesh:NoExp] OR "Almshouses"[Mesh] OR "Housing for the Elderly"[Mesh] OR "Public Housing"[Mesh] OR "accessory dwelling unit"[tiab] OR "displaced people"[tiab] OR "displaced person"[tiab] OR "home moves"[tiab] OR "residential instabil"[tiab] OR "street people"[tiab] OR apartment*[tiab] OR condo[tiab] OR condominium*[tiab] OR condos[tiab] OR dweller*[tiab] OR dwelling[tiab] OR evicted[tiab] OR eviction*[tiab] OR foreclos*[tiab] OR homeless*[tiab] OR homeownership[tiab] OR homes[tiab] OR house[tiab] OR houses[tiab] OR housing[tiab] OR leaseholder*[tiab] OR rent[tiab] OR rental[tiab] OR renter*[tiab] OR renting[tiab] OR tenant[tiab] OR tenants[tiab] OR townhouse*[tiab] OR unoused[tiab]

3. (animals[mesh] NOT humans[mesh])

(1c AND 2c) NOT 3

Embase (Elsevier)

1. 'ophthalmology'/exp OR 'optometry'/exp OR 'visual disorder'/exp OR 'eye'/exp OR 'eye disease'/exp OR 'visually impaired person'/exp OR 'vision'/exp OR 'visual system examination'/exp OR 'eye surgery'/exp OR 'ophthalmologist'/exp OR 'optometrist'/exp OR ('aicardi syndrome' OR 'amaurosis fugax' OR 'angioid streaks' OR 'artificial lens' OR 'cogan syndrome' OR 'color perception' OR 'cone dystrophy' OR 'duane retraction syndrome' OR 'ectopia lentis' OR 'epiretinal membrane' OR 'familial exudative vitreoretinopathies' OR 'fluorescein angiography' OR 'leber congenital amaurosis' OR 'lens subluxation' OR 'limbal stem cell deficiency' OR 'meibomian gland' OR 'miller fisher syndrome' OR 'Mucous Membrane Pemphigoid' OR 'opsoclonus-myoclonus' OR 'orbital cellulitis' OR 'orbital disease' OR 'orbital myositis' OR 'orbital neoplasm' OR 'orbital pseudotumor' OR 'persistent hyperplastic primary vitreous' OR 'refractive error' OR 'retrobulbar hemorrhage' OR 'slit lamp microscopy' OR 'stargardt disease' OR 'susac syndrome' OR 'tolosa-hunt syndrome' OR 'vitreous detachment' OR 'vitreous hemorrhage' OR 'walker-warburg syndrome' OR 'weill-marchesani syndrome' OR aberrometry OR amblyopia OR aniridia OR aniseikonia OR anisocoria OR anisometropia OR anophthalmos OR aphakia OR asthenopia OR astigmatism OR blephar* OR blindness OR cataract* OR chalazion OR chorioretinopath* OR choroid* OR coloboma OR cone-rod OR conjunctiv* OR cornea* OR dacryocystitis OR diplopia OR ectropion OR electronystagmography OR electrooculography OR electroretinography OR endophthalmitis OR enophthalmos OR entropion OR exophthalmos OR fluorophotometry OR glaucoma OR gonioscopy OR hemianopsia OR hordeolum OR hydrophthalmos OR hyperopia OR hyphema OR iridocorneal OR iris OR keratiti* OR keratoconus OR lacrimal OR macula* OR microphthalmos OR miosis OR mydriasis OR myopia OR nystagmus OR ocular* OR ophthalmodynamometry OR ophthalmolog* OR ophthalmopathy OR ophthalmoplegia OR ophthalmoscopy OR optic OR optometry OR papilledema OR photophobia OR pinguecula OR presbyopia OR pterygium OR pupil OR retina* OR retinitis OR retinoblastoma OR retinopath* OR retinoscopy OR sclera* OR scleritis OR scotoma OR strabismus OR trachoma OR trichiasis OR uveal* OR uveitis OR visual OR vitreoretinopathy OR xerophthalmia):ti,ab OR (eye OR eyes OR vision):ti

2. 'residential home'/exp OR 'housing'/exp OR 'home for the aged'/exp OR 'housing instability'/exp OR 'homeless person'/exp OR 'eviction'/exp OR ('accessory dwelling unit' OR 'displaced people' OR 'displaced person' OR 'home moves' OR 'residential instabil' OR 'street people' OR apartment* OR condo OR condominium* OR condos OR dweller* OR dwelling OR evicted OR eviction* OR foreclos* OR homeless* OR homeownership OR homes OR house OR houses OR housing OR leaseholder* OR rent OR rental OR renter* OR renting OR tenant OR tenants OR townhouse* OR unoused):ti,ab

7. ((animal'/exp OR 'nonhuman'/exp) NOT 'human'/exp)

CINAHL Complete (EBSCO)

1. (MH "Ophthalmology") OR (MH "Diagnosis, Eye+") OR (MH "Eye Manifestations+") OR (MH "Eye Surgery+") OR (MH "Eye+") OR (MH "Eye Infections, Viral+") OR (MH "Eye Diseases+") OR (MH "Blindness") OR (MH "Vision Disorders+") OR (MH "Vision+") OR (MH "Vision Tests+") OR (MH "Vision Screening") OR (MH "Insurance, Vision") OR (MH "Optometry") OR (MH "Ophthalmologists") OR (MH "Ophthalmic Technologists") OR (MH "Optometrists") OR TI("aicardi syndrome" OR "amaurosis fugax" OR "angioid streaks" OR "artificial lens" OR "cogan syndrome" OR "color perception" OR "cone dystrophy" OR "duane retraction syndrome" OR "ectopia lentis" OR "epiretinal membrane" OR "familial exudative vitreoretinopathies" OR "fluorescein angiography" OR "leber congenital amaurosis" OR "lens subluxation" OR "limbal stem cell deficiency" OR "meibomian gland" OR "miller fisher syndrome" OR "Mucous Membrane Pemphigoid" OR "opsoclonus-myoclonus" OR "orbital cellulitis" OR "orbital disease"" OR "orbital myositis" OR "orbital neoplasm"" OR "orbital pseudotumor" OR "persistent hyperplastic primary vitreous" OR "refractive error"" OR "retrobulbar hemorrhage" OR "slit lamp microscopy" OR "stargardt disease" OR "susac syndrome" OR "tolosa-hunt syndrome" OR "vitreous detachment" OR "vitreous hemorrhage" OR "walker-warburg syndrome" OR "weill-marchesani syndrome" OR aberrometry OR amblyopia OR aniridia OR aniseikonia OR anisocoria OR anisometropia OR anophthalmos OR aphakia OR asthenopia OR astigmatism OR blephar* OR blind* OR cataract* OR chalazion OR chorioretinopath* OR choroid* OR coloboma OR cone-rod OR conjunctiv* OR cornea* OR dacryocystitis OR diplopia OR ectropion OR electronystagmography OR electrooculography OR electroretinography OR endophthalmitis OR enophthalmos OR entropion OR exophthalmos OR fluorophotometry OR glaucoma OR gonioscopy OR hemianopsia OR hordeolum OR hydrophthalmos OR hyperopia OR hyphema OR iridocorneal OR iris OR keratiti* OR keratoconus OR lacrimal OR macula* OR microphthalmos OR miosis OR mydriasis OR myopia OR nystagmus OR ocular* OR ophthalmodynamometry OR ophthalmolog* OR ophthalmopathy OR ophthalmoplegia OR ophthalmoscopy OR optic OR optometry OR papilledema OR photophobia OR pinguecula OR presbyopia OR pterygium OR pupil OR retina* OR retinitis OR retinoblastoma OR retinopath* OR retinoscopy OR sclera* OR scleritis OR scotoma OR strabismus OR trachoma OR trichiasis OR uveal* OR uveitis OR visual OR vitreoretinopathy OR xerophthalmia OR eye OR eyes OR vision) OR AB("aicardi syndrome" OR "amaurosis fugax" OR "angioid streaks" OR "artificial lens" OR "cogan syndrome" OR "color perception" OR "cone dystrophy" OR "duane retraction syndrome" OR "ectopia lentis" OR "epiretinal membrane" OR "familial exudative vitreoretinopathies" OR "fluorescein angiography" OR "leber congenital amaurosis" OR "lens subluxation" OR "limbal stem cell deficiency" OR "meibomian gland" OR "miller fisher syndrome" OR "Mucous Membrane Pemphigoid" OR "opsoclonus-myoclonus" OR "orbital cellulitis" OR "orbital disease"" OR "orbital myositis" OR "orbital neoplasm"" OR "orbital pseudotumor" OR "persistent hyperplastic primary vitreous" OR "refractive error"" OR "retrobulbar hemorrhage" OR "slit lamp microscopy" OR "stargardt disease" OR "susac syndrome" OR "tolosa-hunt syndrome" OR "vitreous detachment" OR "vitreous hemorrhage" OR "walker-warburg syndrome" OR "weill-marchesani syndrome" OR aberrometry OR amblyopia OR aniridia OR aniseikonia OR anisocoria OR anisometropia OR anophthalmos OR aphakia OR asthenopia OR astigmatism OR blephar* OR blind* OR cataract* OR chalazion OR chorioretinopath* OR choroid* OR coloboma OR cone-rod OR conjunctiv* OR cornea* OR dacryocystitis OR diplopia OR ectropion OR electronystagmography OR electrooculography OR electroretinography OR endophthalmitis OR enophthalmos OR entropion OR exophthalmos OR fluorophotometry OR glaucoma OR gonioscopy OR hemianopsia OR hordeolum OR hydrophthalmos OR hyperopia OR hyphema OR iridocorneal OR iris OR keratiti* OR keratoconus OR lacrimal OR macula* OR microphthalmos OR miosis OR mydriasis OR myopia OR nystagmus OR ocular* OR ophthalmodynamometry OR ophthalmolog* OR ophthalmopathy OR ophthalmoplegia OR ophthalmoscopy OR optic OR optometry OR papilledema OR photophobia OR pinguecula OR presbyopia OR pterygium OR pupil OR retina* OR retinitis OR retinoblastoma OR retinopath* OR retinoscopy OR sclera* OR scleritis OR scotoma OR strabismus OR trachoma OR trichiasis OR uveal* OR uveitis OR visual OR vitreoretinopathy OR xerophthalmia)

2b. (MH "Housing+") OR (MH "Homelessness") OR (MH "Housing Instability") OR (MH "Homeless Persons") OR TI("accessory dwelling unit" OR "displaced people" OR "displaced person"" OR "home moves" OR "residential instabil"" OR "street people" OR apartment* OR condo OR condominium* OR condos OR dweller* OR dwelling OR evicted OR eviction* OR foreclos* OR homeless* OR homeownership OR "homes" OR house OR houses OR housing OR leaseholder* OR rent OR rental OR renter* OR renting OR tenant OR tenants OR townhouse* OR unhouse) OR AB("accessory dwelling unit" OR "displaced people" OR "displaced person"" OR "home moves" OR "residential instabil"" OR "street people" OR apartment* OR condo OR condominium* OR condos OR dweller* OR dwelling OR evicted OR eviction* OR foreclos* OR homeless* OR homeownership OR "homes" OR house OR houses OR housing OR leaseholder* OR rent OR rental OR renter* OR renting OR tenant OR tenants OR townhouse* OR unhouse)

3. ((MH "Animals") NOT (MH "Human"))

(1 AND 2) NOT 3

Psycinfo (EBSCO)

1. DE "Amblyopia" OR DE "Autokinetic Illusion" OR DE "Balint's Syndrome" OR DE "Binocular Vision" OR DE "Blindness" OR DE "Blindsight" OR DE "Brightness Perception" OR DE "Cataracts" OR DE "Color Perception" OR DE "Color Vision Deficiency" OR DE "Cornea" OR DE "Dark Adaptation" OR DE "Eye (Anatomy)" OR DE "Eye Disorders" OR DE "Eye Fixation" OR DE "Face Perception" OR DE "Fovea" OR DE "Foveal Vision" OR DE "Glaucoma" OR DE "Hemianopia" OR DE "Interocular Transfer" OR DE "Iris (Eye)" OR DE "Lens (Eye)" OR DE "Linear Perspective" OR DE "Low Vision" OR DE "Monocular Vision" OR DE "Nystagmus" OR DE "Ophthalmology" OR DE "Optic Neuritis" OR DE "Optometrists" OR DE "Optometry" OR DE "Peripheral Vision" OR DE "Pupil (Eye)" OR DE "Refraction Errors" OR DE "Retina" OR DE "Retinal Eccentricity" OR DE "Retinal Image" OR DE "Stereoscopic Vision" OR DE "Strabismus" OR DE "Texture Perception" OR DE "Tunnel Vision" OR DE "Vision Disorders" OR DE "Vision" OR DE "Visual Acuity" OR DE "Visual Contrast" OR DE "Visual Discrimination" OR DE "Visual Field" OR DE "Visual Perception" OR DE "Visual Search" OR DE "Visual Thresholds" OR DE "Visuospatial Ability" OR TI("aicardi syndrome" OR "amaurosis fugax" OR "angioid streaks" OR "artificial lens" OR "cogan syndrome" OR "color perception" OR "cone dystrophy" OR "duane retraction syndrome" OR "ectopia lentis" OR "epiretinal membrane" OR "familial exudative vitreoretinopathies" OR "fluorescein angiography" OR "leber congenital amaurosis" OR "lens subluxation" OR "limbal stem cell deficiency" OR "meibomian gland" OR "miller fisher syndrome" OR "Mucous Membrane Pemphigoid" OR "opsoclonus-myoclonus" OR "orbital cellulitis" OR "orbital disease"" OR "orbital myositis" OR "orbital neoplasm"" OR "orbital pseudotumor" OR "persistent hyperplastic primary vitreous" OR "refractive error"" OR "retrobulbar hemorrhage" OR "slit lamp microscopy" OR "stargardt disease" OR "susac syndrome" OR "tolosa-hunt syndrome" OR "vitreous detachment" OR "vitreous hemorrhage" OR "walker-warburg syndrome" OR "weill-marchesani syndrome" OR aberrometry OR amblyopia OR aniridia OR aniseikonia OR anisocoria OR anisometropia OR anophthalmos OR aphakia OR asthenopia OR astigmatism OR blephar* OR blind* OR cataract* OR chalazion OR chorioretinopath* OR choroid* OR coloboma OR cone-rod OR conjunctiv* OR cornea* OR dacryocystitis OR diplopia OR ectropion OR electronystagmography OR electrooculography OR electroretinography OR endophthalmitis OR enophthalmos OR entropion OR exophthalmos OR fluorophotometry OR glaucoma OR gonioscopy OR hemianopsia OR hordeolum OR

hydrophthalmos OR hyperopia OR hyphema OR iridocorneal OR iris OR keratiti* OR keratoconus OR lacrimal OR macula* OR microphthalmos OR miosis OR mydriasis OR myopia OR nystagmus OR ocular* OR ophthalmodynamometry OR ophthalmolog* OR ophthalmopathy OR ophthalmoplegia OR ophthalmoscopy OR optic OR optometry OR papilledema OR photophobia OR pinguecula OR presbyopia OR pterygium OR pupil OR retina* OR retinitis OR retinoblastoma OR retinopath* OR retinoscopy OR sclera* OR scleritis OR scotoma OR strabismus OR trachoma OR trichiasis OR uveal* OR uveitis OR visual OR vitreoretinopathy OR xerophthalmia OR eye OR eyes OR vision) OR AB("aicardi syndrome" OR "amaurosis fugax" OR "angioid streaks" OR "artificial lens" OR "cogan syndrome" OR "color perception" OR "cone dystrophy" OR "duane retraction syndrome" OR "ectopia lentis" OR "epiretinal membrane" OR "familial exudative vitreoretinopathies" OR "fluorescein angiography" OR "leber congenital amaurosis" OR "lens subluxation" OR "limbal stem cell deficiency" OR "meibomian gland" OR "miller fisher syndrome" OR "Mucous Membrane Pemphigoid" OR "opsoclonus-myoclonus" OR "orbital cellulitis" OR "orbital disease*" OR "orbital myositis" OR "orbital neoplasm*" OR "orbital pseudotumor" OR "persistent hyperplastic primary vitreous" OR "refractive error*" OR "retrobulbar hemorrhage" OR "slit lamp microscopy" OR "stargardt disease" OR "susac syndrome" OR "tolosa-hunt syndrome" OR "vitreous detachment" OR "vitreous hemorrhage" OR "walker-warburg syndrome" OR "weill-marchesani syndrome" OR aberrometry OR amblyopia OR aniridia OR aniseikonia OR anisocoria OR anisometropia OR anophthalmos OR aphakia OR asthenopia OR astigmatism OR blephar* OR blind* OR cataract* OR chalazion OR chorioretinopath* OR choroid* OR coloboma OR cone-rod OR conjunctiv* OR cornea* OR dacryocystitis OR diplopia OR ectropion OR electronystagmography OR electrooculography OR electroretinography OR endophthalmitis OR enophthalmos OR entropion OR exophthalmos OR fluorophotometry OR glaucoma OR gonioscopy OR hemianopsia OR hordeolum OR hydrophthalmos OR hyperopia OR hyphema OR iridocorneal OR iris OR keratiti* OR keratoconus OR lacrimal OR macula* OR microphthalmos OR miosis OR mydriasis OR myopia OR nystagmus OR ocular* OR ophthalmodynamometry OR ophthalmolog* OR ophthalmopathy OR ophthalmoplegia OR ophthalmoscopy OR optic OR optometry OR papilledema OR photophobia OR pinguecula OR presbyopia OR pterygium OR pupil OR retina* OR retinitis OR retinoblastoma OR retinopath* OR retinoscopy OR sclera* OR scleritis OR scotoma OR strabismus OR trachoma OR trichiasis OR uveal* OR uveitis OR visual OR vitreoretinopathy OR xerophthalmia)

2b. DE "Housing" OR DE "Assisted Living" OR DE "Dormitories" OR DE "Group Homes" OR DE "Retirement Communities" OR DE "Shelters" OR DE "Homeless" OR DE "Homeless Mentally Ill" OR DE "Homeless Youth" OR DE "Human Displacement" OR TI("accessory dwelling unit" OR "displaced people" OR "displaced person*" OR "home moves" OR "residential instabil*" OR "street people" OR apartment* OR condo OR condominium* OR condos OR dweller* OR dwelling OR evicted OR eviction* OR foreclos* OR homeless* OR homeownership OR "homes" OR house OR houses OR housing OR leaseholder* OR rent OR rental OR renter* OR renting OR tenant OR tenants OR townhouse* OR unhoused) OR AB("accessory dwelling unit" OR "displaced people" OR "displaced person*" OR "home moves" OR "residential instabil*" OR "street people" OR apartment* OR condo OR condominium* OR condos OR dweller* OR dwelling OR evicted OR eviction* OR foreclos* OR homeless* OR homeownership OR "homes" OR house OR houses OR housing OR leaseholder* OR rent OR rental OR renter* OR renting OR tenant OR tenants OR townhouse* OR unhoused)

3. ((MH "Animals") NOT (MH "Human"))
(ZP "animal") NOT (ZP "human"))

(1 AND 2) NOT 3

SocINDEX with Full Text (EBSCO)

1. DE "OLDER people with visual disabilities" OR DE "VISION disorders -- Social aspects" OR DE "BLIND people" OR DE "PEOPLE with visual disabilities" OR DE "BLIND parents" OR DE "OLDER blind people" OR DE "BLIND women" OR DE "BLINDNESS" OR TI("aicardi syndrome" OR "amaurosis fugax" OR "angioid streaks" OR "artificial lens" OR "cogan syndrome" OR "color perception" OR "cone dystrophy" OR "duane retraction syndrome" OR "ectopia lentis" OR "epiretinal membrane" OR "familial exudative vitreoretinopathies" OR "fluorescein angiography" OR "leber congenital amaurosis" OR "lens subluxation" OR "limbal stem cell deficiency" OR "meibomian gland" OR "miller fisher syndrome" OR "Mucous Membrane Pemphigoid" OR "opsoclonus-myoclonus" OR "orbital cellulitis" OR "orbital disease*" OR "orbital myositis" OR "orbital neoplasm*" OR "orbital pseudotumor" OR "persistent hyperplastic primary vitreous" OR "refractive error*" OR "retrobulbar hemorrhage" OR "slit lamp microscopy" OR "stargardt disease" OR "susac syndrome" OR "tolosa-hunt syndrome" OR "vitreous detachment" OR "vitreous hemorrhage" OR "walker-warburg syndrome" OR "weill-marchesani syndrome" OR aberrometry OR amblyopia OR aniridia OR aniseikonia OR anisocoria OR anisometropia OR anophthalmos OR aphakia OR asthenopia OR astigmatism OR blephar* OR blind* OR cataract* OR chalazion OR chorioretinopath* OR choroid* OR coloboma OR cone-rod OR conjunctiv* OR cornea* OR dacryocystitis OR diplopia OR ectropion OR electronystagmography OR electrooculography OR electroretinography OR endophthalmitis OR enophthalmos OR entropion OR exophthalmos OR fluorophotometry OR glaucoma OR gonioscopy OR hemianopsia OR hordeolum OR hydrophthalmos OR hyperopia OR hyphema OR iridocorneal OR iris OR keratiti* OR keratoconus OR lacrimal OR macula* OR microphthalmos OR miosis OR mydriasis OR myopia OR nystagmus OR ocular* OR ophthalmodynamometry OR ophthalmolog* OR ophthalmopathy OR ophthalmoplegia OR ophthalmoscopy OR optic OR optometry OR papilledema OR photophobia OR pinguecula OR presbyopia OR pterygium OR pupil OR retina* OR retinitis OR retinoblastoma OR retinopath* OR retinoscopy OR sclera* OR scleritis OR scotoma OR strabismus OR trachoma OR trichiasis OR uveal* OR uveitis OR visual OR vitreoretinopathy OR xerophthalmia OR eye OR eyes OR vision) OR AB("aicardi syndrome" OR "amaurosis fugax" OR "angioid streaks" OR "artificial lens" OR "cogan syndrome" OR "color perception" OR "cone dystrophy" OR "duane retraction syndrome" OR "ectopia lentis" OR "epiretinal membrane" OR "familial exudative vitreoretinopathies" OR "fluorescein angiography" OR "leber congenital amaurosis" OR "lens subluxation" OR "limbal stem cell deficiency" OR "meibomian gland" OR "miller fisher syndrome" OR "Mucous Membrane Pemphigoid" OR "opsoclonus-myoclonus" OR "orbital cellulitis" OR "orbital disease*" OR "orbital myositis" OR "orbital neoplasm*" OR "orbital pseudotumor" OR "persistent hyperplastic primary vitreous" OR "refractive error*" OR "retrobulbar hemorrhage" OR "slit lamp microscopy" OR "stargardt disease" OR "susac syndrome" OR "tolosa-hunt syndrome" OR "vitreous detachment" OR "vitreous hemorrhage" OR "walker-warburg syndrome" OR "weill-marchesani syndrome" OR aberrometry OR amblyopia OR aniridia OR aniseikonia OR anisocoria OR anisometropia OR anophthalmos OR aphakia OR asthenopia OR astigmatism OR blephar* OR blind* OR cataract* OR chalazion OR chorioretinopath* OR choroid* OR coloboma OR cone-rod OR conjunctiv* OR cornea* OR dacryocystitis OR diplopia OR ectropion OR electronystagmography OR electrooculography OR electroretinography OR endophthalmitis OR enophthalmos OR entropion OR exophthalmos OR fluorophotometry OR glaucoma OR gonioscopy OR hemianopsia OR hordeolum OR hydrophthalmos OR hyperopia OR hyphema OR iridocorneal OR iris OR keratiti* OR keratoconus OR lacrimal OR macula* OR microphthalmos OR miosis OR mydriasis OR myopia OR nystagmus OR ocular* OR ophthalmodynamometry OR ophthalmolog* OR ophthalmopathy OR ophthalmoplegia OR ophthalmoscopy OR optic OR optometry OR papilledema OR photophobia OR pinguecula OR presbyopia OR pterygium OR pupil OR retina* OR retinitis OR retinoblastoma OR retinopath* OR retinoscopy OR sclera* OR scleritis OR scotoma OR strabismus OR trachoma OR trichiasis OR uveal* OR uveitis OR visual OR vitreoretinopathy OR xerophthalmia)

2. DE "INCLUSIONARY housing programs" OR DE "HOUSING discrimination laws -- United States" OR DE "HOUSING market" OR DE "HOUSING & health" OR DE "HOUSING discrimination laws" OR DE "AFRICAN American homeless persons" OR DE "DISCRIMINATION against the homeless" OR DE "HISPANIC American homeless persons" OR DE "NATIVE American homeless persons" OR DE "TRAMPS" OR DE "ROGUES & vagabonds" OR DE "HOMELESS persons" OR DE "HOMELESS shelters" OR DE "HOMELESS students" OR DE "HOMELESS veterans" OR DE "HOMELESS women" OR DE "RENT" OR DE "LANDLORD-tenant relations" OR DE "TENANTS" OR DE "EVICTION" OR DE "HOUSING" OR DE "CONGREGATE housing" OR DE "COOPERATIVE housing" OR DE "EMERGENCY housing" OR DE "HOME ownership" OR DE "HOMELESSNESS" OR DE "HOUSEHOLDS" OR DE "HOUSING discrimination" OR DE "HOUSING for people with disabilities" OR DE "LOW-income housing" OR DE "MINORITIES -- Housing" OR DE "PUBLIC housing" OR DE "RENTAL housing" OR DE "RURAL housing" OR DE "SHARED housing" OR DE "SLUMS" OR DE "STUDENT housing" OR DE "WOMEN'S shelters" OR DE "HOME ownership" OR DE "HOUSING discrimination" OR DE "PUBLIC housing" OR DE "RENTAL housing" OR DE "HOMEOWNERS" OR DE "HOUSING finance" OR DE "HOUSING laws" OR DE "HOUSING policy" OR DE "HOUSING satisfaction" OR DE "HOME environment" OR DE "DWELLINGS" OR DE "HOUSING" OR DE "HOMELESS families" OR DE "HOMELESS men" OR DE "OLDER homeless persons" OR TI("accessory dwelling unit" OR "displaced people" OR "displaced person*" OR "home moves" OR "residential instabil*" OR "street people" OR apartment" OR condo OR condominium* OR condos OR dweller* OR dwelling OR evicted OR eviction* OR foreclos* OR homeless* OR homeownership OR "homes" OR house OR houses OR housing OR leaseholder* OR rent OR rental OR renter* OR renting OR tenant OR tenants OR townhouse* OR unhousted) OR AB("accessory dwelling unit" OR "displaced people" OR "displaced person*" OR "home moves" OR "residential instabil*" OR "street people" OR apartment* OR condo OR condominium* OR condos OR dweller* OR dwelling OR evicted OR eviction* OR foreclos* OR homeless* OR homeownership OR "homes" OR house OR houses OR housing OR leaseholder* OR rent OR rental OR renter* OR renting OR tenant OR tenants OR townhouse* OR unhousted)

1 AND 2

Scopus (Elsevier)

1. TITLE(("aicardi syndrome" OR "amaurosis fugax" OR "angioid streaks" OR "artificial lens" OR "cogan syndrome" OR "color perception" OR "cone dystrophy" OR "duane retraction syndrome" OR "ectopia lentis" OR "epiretinal membrane" OR "familial exudative vitreoretinopathies" OR "fluorescein angiography" OR "leber congenital amaurosis" OR "lens subluxation" OR "limbal stem cell deficiency" OR "meibomian gland" OR "miller fisher syndrome" OR "Mucous Membrane Pemphigoid" OR "opsoclonus-myoclonus" OR "orbital cellulitis" OR "orbital disease" OR "orbital myositis" OR "orbital neoplasm" OR "orbital pseudotumor" OR "persistent hyperplastic primary vitreous" OR "refractive error" OR "retrobulbar hemorrhage" OR "slit lamp microscopy" OR "stargardt disease" OR "susac syndrome" OR "tolosa-hunt syndrome" OR "vitreous detachment" OR "vitreous hemorrhage" OR "walker-warburg syndrome" OR "weill-marchesani syndrome" OR aberrometry OR amblyopia OR aniridia OR aniseikonia OR anisocoria OR anisometropia OR anophthalmos OR aphakia OR asthenopia OR astigmatism OR blephar* OR blind OR cataract* OR chalazion OR chorioretinopath* OR choroid* OR coloboma OR cone-rod OR conjunctiv* OR cornea* OR dacryocystitis OR diplopia OR ectropion OR electronystagmography OR electrooculography OR electroretinography OR endophthalmitis OR enophthalmos OR entropion OR exophthalmos OR fluorophotometry OR glaucoma OR gonioscopy OR hemianopsia OR hordeolum OR hydrophthalmos OR hyperopia OR hypHEMA OR iridocorneal OR iris OR keratiti* OR keratoconus OR lacrimal OR macula* OR microphthalmos OR miosis OR mydriasis OR myopia OR nystagmus OR ocular* OR ophthalmodynamometry OR ophthalmolog* OR ophthalmopathy OR ophthalmoplegia OR ophthalmoscopy OR optic OR optometry OR papilledema OR photophobia OR pinguecula OR presbyopia OR pterygium OR pupil OR retina* OR retinitis OR retinoblastoma OR retinopath* OR retinoscopy OR sclera* OR scleritis OR scotoma OR strabismus OR trachoma OR trichiasis OR uveal* OR uveitis OR visual OR vitreoretinopathy OR xerophthalmia OR eye OR eyes OR vision) AND ("accessory dwelling unit" OR "displaced people" OR "displaced person" OR "home moves" OR "residential instabil*" OR "street people" OR apartment* OR condo OR condominium* OR condos OR dweller* OR dwelling OR evicted OR eviction* OR foreclos* OR homeless* OR homeownership OR "homes" OR house OR houses OR housing OR leaseholder* OR rent OR rental OR renter* OR renting OR tenant OR tenants OR townhouse* OR unhousted))

Web of Science (SCI-EXPANDED, SSCI, and ESCI)

TITLE(("aicardi syndrome" OR "amaurosis fugax" OR "angioid streaks" OR "artificial lens" OR "cogan syndrome" OR "color perception" OR "cone dystrophy" OR "duane retraction syndrome" OR "ectopia lentis" OR "epiretinal membrane" OR "familial exudative vitreoretinopathies" OR "fluorescein angiography" OR "leber congenital amaurosis" OR "lens subluxation" OR "limbal stem cell deficiency" OR "meibomian gland" OR "miller fisher syndrome" OR "Mucous Membrane Pemphigoid" OR "opsoclonus-myoclonus" OR "orbital cellulitis" OR "orbital disease" OR "orbital myositis" OR "orbital neoplasm" OR "orbital pseudotumor" OR "persistent hyperplastic primary vitreous" OR "refractive error" OR "retrobulbar hemorrhage" OR "slit lamp microscopy" OR "stargardt disease" OR "susac syndrome" OR "tolosa-hunt syndrome" OR "vitreous detachment" OR "vitreous hemorrhage" OR "walker-warburg syndrome" OR "weill-marchesani syndrome" OR aberrometry OR amblyopia OR aniridia OR aniseikonia OR anisocoria OR anisometropia OR anophthalmos OR aphakia OR asthenopia OR astigmatism OR blephar* OR blind* OR cataract* OR chalazion OR chorioretinopath* OR choroid* OR coloboma OR cone-rod OR conjunctiv* OR cornea* OR dacryocystitis OR diplopia OR ectropion OR electronystagmography OR electrooculography OR electroretinography OR endophthalmitis OR enophthalmos OR entropion OR exophthalmos OR fluorophotometry OR glaucoma OR gonioscopy OR hemianopsia OR hordeolum OR hydrophthalmos OR hyperopia OR hypHEMA OR iridocorneal OR iris OR keratiti* OR keratoconus OR lacrimal OR macula* OR microphthalmos OR miosis OR mydriasis OR myopia OR nystagmus OR ocular* OR ophthalmodynamometry OR ophthalmolog* OR ophthalmopathy OR ophthalmoplegia OR ophthalmoscopy OR optic OR optometry OR papilledema OR photophobia OR pinguecula OR presbyopia OR pterygium OR pupil OR retina* OR retinitis OR retinoblastoma OR retinopath* OR retinoscopy OR sclera* OR scleritis OR scotoma OR strabismus OR trachoma OR trichiasis OR uveal* OR uveitis OR visual OR vitreoretinopathy OR xerophthalmia OR eye OR eyes OR vision) AND ("accessory dwelling unit" OR "displaced people" OR "displaced person" OR "home moves" OR "residential instabil*" OR "street people" OR apartment* OR condo OR condominium* OR condos OR dweller* OR dwelling OR evicted OR eviction* OR foreclos* OR homeless* OR homeownership OR "homes" OR house OR houses OR housing OR leaseholder* OR rent OR rental OR renter* OR renting OR tenant OR tenants OR townhouse* OR unhousted))

