New and upcoming resources for vision surveillance

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VEHSS Website

• VEHSS 1.0
  • Site launch July 2018
  • Survey data updates

• VEHSS 2.0
  • Site launch September 2019
  • More data, new indicators
  • State data dashboards
  • Integrated prevalence estimates
VEHSS 1.0

- Review of vision and eye health data sources and indicator development
- Technical reports for data analysis
- Access data: Data queries, visualizations, public use files
Maps
Queries

VEHSS - THE VISION & EYE HEALTH SURVEILLANCE SYSTEM
VEHSS 2.0 - Coming September 2019

• More data
  • Medicaid MAX, Private medical insurance claims
  • More survey questions

• More indicators
  • Service utilization
  • Medical payments

• State data dashboards
  • Surveillance interface for every state and territory
  • More powerful analysis tools
  • Trend analyses
VEHSS 2.0 Homepage

New for VEHSS 2.0
VEHSS Location Explorer: Access a data interface for your state

VEHSS 1.0
VEHSS Data Explorer: Access national data and state maps

VEHSS - The Vision & Eye Health Surveillance System
VEHSS 2.0 Location Explorer

Create 1 or 2-level cross tabulations in a single year of data

More filters to narrow your query
VEHSS 2.0 State Data Dashboard – Trend line analyses

Select all years of data for trend analyses
Data Analyses

- Aggregates 250 million+ person level records per year in 11 data sets
- Tracks 200+ indicators
- Filter and/or stratify by any combination of:
  - Age group
  - Race/ethnicity
  - Sex
  - Risk factor
  - Subgroup
  - Year
  - State

Analysis examples:
- ACS: Self-reported vision loss by state by Age*Sex
- IRIS: Diagnosed cataracts in Ohio by Sex*Race
- Medicaid: Eye exams among males in Maryland by Age*Risk Factor
- Medicare: Copayments for glaucoma surgery among non-Hispanic black females in North Carolina by service type over time
Integrated Prevalence Estimates

- State-level prevalence estimates
  - Integrative metaregression model
  - Demographic and geographic variation in indicators to adjust examination-based estimates
Vision Loss Prevalence Estimate

- Start with best-corrected visual acuity
  - Meta-analysis of published examination studies
  - NHANES with multiple imputation

- Fill in missing age groups from self-reported low vision
  - Variation for ages 0-11, 12-17 from NSCH
  - Variation for ages 80+ or 85+ from ACS

- Missing populations and state variation
  - Relative prevalence in group quarters from ACS

- State variation and time, population trends
  - State variation and population change in ACS
  - Time variation in published examination studies
Impact of Data Integration on National Vision Loss Prevalence Estimate

EXAMINATION DATA: 40+ COMMUNITY DWELLING
ADDING NHANES, MULTIPLE IMPUTATION
ADDING MISSING AGE GROUPS
ADDING GROUP QUARTERS
UPDATE TO 2017
Future Plans for Vision Surveillance

• County level estimates
• Indicator cross-validation study
• More indicators and data sources
• More integrated prevalence estimates
• Continued website enhancements
Thank you!
Focus on Eye Health
National Summit
A Lifetime of Vision
July 17, 2019 | National Press Club | Washington D.C.
Prevent Blindness
Bringing Americans to Eye Care