Minority Health in Rural Virginia

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Office of Minority Health and Health Equity
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Mission: to identify health inequities and their root causes and promote equitable opportunities to be healthy

Vision: Health equity for all Virginians
OMHHE Priorities

Analyze data to characterize inequities in health and healthcare, their geographic distribution, their association with social determinants of health
Identify high priority target areas
Promote equitable access to quality health care and providers.
Empower communities to promote health equity
Influence health, healthcare, and public policy in order to promote health equity in all policies.
Enhance the capacity of public health and our partners to promote health equity.
Cost of Rural Virginia Health Inequities

Estimated Yearly Direct Costs for 2006-2008

- Stroke $18,957,000
- Heart Disease $195,492,000
- Cancer $6,231,000
- Unintentional Injury $57,390,000
VIRGINIA MINORITY POPULATIONS

There are five federally recognized minority populations in Virginia that include:

- African-American/Black
- Hispanic/Latino
- Asian-American
- Native Hawaiian or other Pacific Islander
- American Indian and Alaskan Native
Race/Ethnicity Distribution in Virginia
Source: Claritas Population Estimate 2009

- **American Indian & Alaska Native Alone**: 22,454 (0.30%)
- **Black Alone**: 1,520,191 (19.30%)
- **Hispanic**: 540,470 (6.90%)
- **Some Other Race Alone**: 29,502 (0.40%)
- **Native Hawaiian & Other Pacific Islander Alone**: 4,837 (0.10%)
- **Asian Alone**: 377,867 (4.80%)
- **Two or More Races**: 159,748 (2.00%)
- **White Alone**: 5,228,910 (66.30%)
Virginia ~ Percent Minorities
2009 Estimates by Census Tract

% Minorities
- 0.0 - 6.6
- 6.7 - 13.5
- 13.6 - 21.7
- 21.8 - 30.5
- 30.6 - 42.4
- 42.5 - 59.2
- 59.3 - 99.7

* Data Source: Claritas 2009 Population Estimates
Health Opportunity Index (HOI)

HOI Featured in the:
2012 Virginia Health Equity Report

10 Indicators/Variables – Social Determinants of Health
Indicators Used to Create the HOI

- Educational Attainment
- Population Density
- Local Commuting Patterns
- EPA Environmental Hazards
- Affordability of Housing and Transportation
- Racial Diversity
- Material Deprivation
- Household Income Diversity
- Job Participation
- Population Churning

HOI

VDH VIRGINIA DEPARTMENT OF HEALTH
Protecting You and Your Environment
Virginia Composite Map - includes all 10 Indicators/variables

Virginia Health Opportunity Index (HOI) *
By Census Tracts
2009 **

* Health Opportunity Index Indicators ~ Education Indicator, EPA Environmental Indicator, Affordability Indicator, Townsend Material Deprivation Indicator, Job Participation Indicator, Population Churning Indicator, Local Commute of Workers Indicator, Racial Diversity Indicator, Population density Indicator & Household Income Indicator

** Data Source: Claritas demographic Data, 2009 and GeoLytics Data, 2009
Virginia Arterial Ischemic Stroke (AIS) ~ 35 Years & Over

Hospitalization (Primary Diagnosis) Discharge Data *
SaTScan Cluster Analysis (50 Miles Radius)
2004~2008

Cluster # | LLR  | Obs  | Exp   | RR   | P Value |
---|------|------|-------|------|---------|
1  | 157.39 | 11,119 | 9,157.29 | 1.21  | 0.001   |
2  | 51.95  | 6,253  | 5,435.22 | 1.15  | 0.001   |
3  | 24.80  | 373    | 252.69 | 1.48  | 0.001   |
4  | 17.43  | 268    | 182.45 | 1.47  | 0.001   |
5  | 14.55  | 619    | 493.67 | 1.25  | 0.002   |

* Data Source: Virginia Health Information, Hospital Discharge Data 2004-2008. Analysis based on SatScan (v8.0, 2009) clustering algorithms developed by Martin Kulldorf for NCI. Data represent Primary Diagnosis Stroke Discharges for ICD-9 Codes, 433.01, 433.11, 433.21, 433.31, 433.81, 433.91, 434.01, 434.11, 434.91, and 436. Data have been age, sex & race-adjusted to the 2008 Virginia State Standard Population. Relative Risk Ratios take into account SatScan adjustments based on Poisson distributions within contiguous area.
Virginia
Arterial Ischemic Stroke (AIS) ~ 35 Years & Over
Hospitalization (Primary Diagnosis) Discharge Data *
SaTScan Cluster Analysis (50 Miles Radius)
Black & White Races
2004~2008

<table>
<thead>
<tr>
<th>Race</th>
<th>Rate / 100,000</th>
<th>Obs</th>
<th>Exp</th>
<th>RR</th>
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<td>9,730</td>
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<td>404.6</td>
<td>1,496</td>
<td>1,452</td>
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</table>

* Data Source: Virginia Health Information, Hospital Discharge Data 2004-2008. Analysis based on SatScan (v8.0, 2009) clustering algorithms developed by Martin Kulldorf for NCI. Data represent Primary Diagnosis Stroke Discharges for ICD-9 Codes, 433.01, 433.11, 433.21, 433.31, 433.81, 433.91, 434.01, 434.11, 434.91, and 436. Data have been age, sex & race-adjusted to the 2008 Virginia State Standard Population. Relative Risk Ratios take into account SatScan adjustments based on Poisson distributions within contiguous area.
Virginia
Arterial Ischemic Stroke (AIS) ~ 35 Years & Over
Hospitalization (Primary Diagnosis) Discharge Data *
SaTScan Cluster Analysis (25 Miles Radius)
2004~2008

* Data Source: Virginia Health Information, Hospital Discharge Data 2004-2008. Analysis based on SatScan (v8.0, 2009) clustering algorithms developed by Martin Kulldorf for NCI. Data represent Primary Diagnosis Stroke Discharges for ICD-9 Codes, 433.01, 433.11, 433.21, 433.31, 433.81, 433.91, 434.01, 434.11, 434.91, and 436. Data have been age, sex & race-adjusted to the 2008 Virginia State Standard Population. Relative Risk Ratios take into account SatScan adjustments based on Poisson distributions within contiguous area.
Virginia
Stroke Related Recurrent Admission ~ 35 Years & Over
Based on 2008 AIS Admissions Cohort
Hospitalization Discharge Data *
Space-Time Permutation Analysis ~ Retrospective
1994~2007

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<th>Cluster #</th>
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<td>42</td>
<td>23.15</td>
<td>1.81</td>
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</tbody>
</table>

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Multilevel Spatial Analysis of Fundamental Causes & the Social Determinants of Health

Statewide by City/County

Census Tract

Census Block Group

Social Profiles, Social Networks & Social Capital
Benefits of the HOI

To identify local Social Determinant of Health (SDOH) that shape health
To learn from communities with good health despite adverse SDOH
To build collaboration across all sectors to promote health equity
To illustrate that “Place Matters” when it comes to health opportunity and health equity
To help communities identify statewide policies & programs to address those conditions and other SDOH that are necessary to promote health equity
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