In Health Matters, Place Matters - The Health Opportunity Index (HOI)

Virginia Department of Health
Office of Health Equity
Identifying the Problem
America’s Health Rankings
United Health Foundation Scorecard
Overall Ranking = 19th

Source: American Health Rankings by United Health Foundation Released 12/15/16
Understanding SDOH

Estimates vary, but research indicates that the SDOH account for more than 50% of variation in population health outcomes.*

*Individual results will vary
Communities of Opportunity

- Parks & trails
- Grocery stores
- Thriving small businesses and entrepreneurs
- Financial institutions
- Better performing schools
- Good transportation options and infrastructure
- Sufficient healthy housing
- Home ownership
- Social inclusion
- IT connectivity
- Strong local governance

Low-Opportunity Communities

- Unsafe/limited parks
- Fast food restaurants
- Payday lenders
- Few small businesses
- Poor performing schools
- Increased pollution and contaminated drinking water
- Few transportation options
- Poor and limited housing stock
- Rental housing/foreclosure
- Social exclusion
- Limited IT connections
- Weak local governance

Source: Dr. Edward Ehlinger, Minnesota Commissioner of Health
2016 President’s Challenge for the Association of State and Territorial Health Officials (ASTHO)
DESIGN AND METHODS
Health Opportunity Index

Identifies areas and populations that are most vulnerable to adverse health outcomes based on the Social Determinants of Health
Geographic Level Can Mask Detail

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
Structure

30+ Variables

13 Indicators

4 Profiles

1 Health Opportunity Index
Community Environmental Profile

- **Air Quality Index (EPA)**
  - Cancer Risk
  - On-road Pollution
  - Non-point Pollution
  - Neurological Risk
  - Respiration Risk
  - Non-road

- **Population Churning Index**
  - Inflow Mobility
  - Outflow Mobility

- **Population-Weighted Density**

- **Walkability Index**
  - Density
  - Diversity (Land-use)
  - Design (Connectivity)
  - Distance to Transit

Additional sections:
- Population - Weighted Density
- Population - Inflow
- Population - Outflow

Office of Health Equity
Virginia Department of Health
Protecting You and Your Environment
Consumer Opportunity Profile

Affordability Index
- Housing Cost
- Transportation Costs
- Average Income

Education Index
- Avg. Years of Schooling

Food Accessibility Index
- % Low Income
- % Low Access to Major Grocery Store
- Distance to Grocery Store

Material Deprivation Index
- Unemployment
- Autoless Homes
- Home Ownership
- Overcrowding
Economic Opportunity Profile

- **Employment Access Index**
  - Number of Jobs
  - Distance to Jobs

- **Income Inequality Index**
  - Gini Coefficient

- **Job Participation Index**
  - % of Working Age Population in the Labor Force
Wellness Disparity Profile

Access to Care Index
- % Uninsured
- Primary Care Physician FTEs within 30 miles

Segregation Index
- Race/Ethnicity
- Population
- Spatial Influence Weighting
USES AND APPLICATIONS
Uses of the HOI

- To show that place matters when it comes to health
- To identify the impact of social determinants of health on statewide health landscape
- To identify HOI indicators that are most influential on local health
- To learn from communities with good health despite adverse HOI indicators
- To build collaboration across all sectors to promote health equity
Monotonicity of HOI

Infant Mortality

Low Birth Weight
Monotonicity of HOI

Life Expectancy at Birth

Disability Free Life Expectancy

Life Expectancy at Birth by HOI Quintiles

Disability Free Life Expectancy by HOI Quintiles
Norfolk City Health District - HOI Indices Contributions

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<th>Variables</th>
<th>Contribution of the Variables (%)</th>
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<td>Affordability Index</td>
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<td>Food Access (LILA)</td>
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Townsend Material Deprivation Index: 19.8%
Affordability Index: 18.3%
Population Density: 17.9%
Access to Employment: 9.1%
Average Years of Schooling: 8.7%
Job Participation: 6.9%
Stable Population: 6.2%
Income Inequality: 5.2%
Walkability: 4.4%
Environmental Quality: 2.7%
Access to Healthcare: 0.4%
Racial Dissimilarity: 0.2%
Food Access (LILA): 0.1%
* Material deprivation entails the lack of goods, services, resources, amenities and physical environment which are customary, or at least widely approved in the society under consideration.
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Visit the Health Opportunity Index Website:
https://www.vdh.virginia.gov/omhhe/hoi/