

NJ DataBank

This website with data from a wide array of sources presents in a user-friendly manner with visuals and comparisons. We invite all citizens, the media and politicians to visit the site, access data in 14 policy areas, and use this information to better understand local issues, assess policy and geographic needs, and hold government accountable.

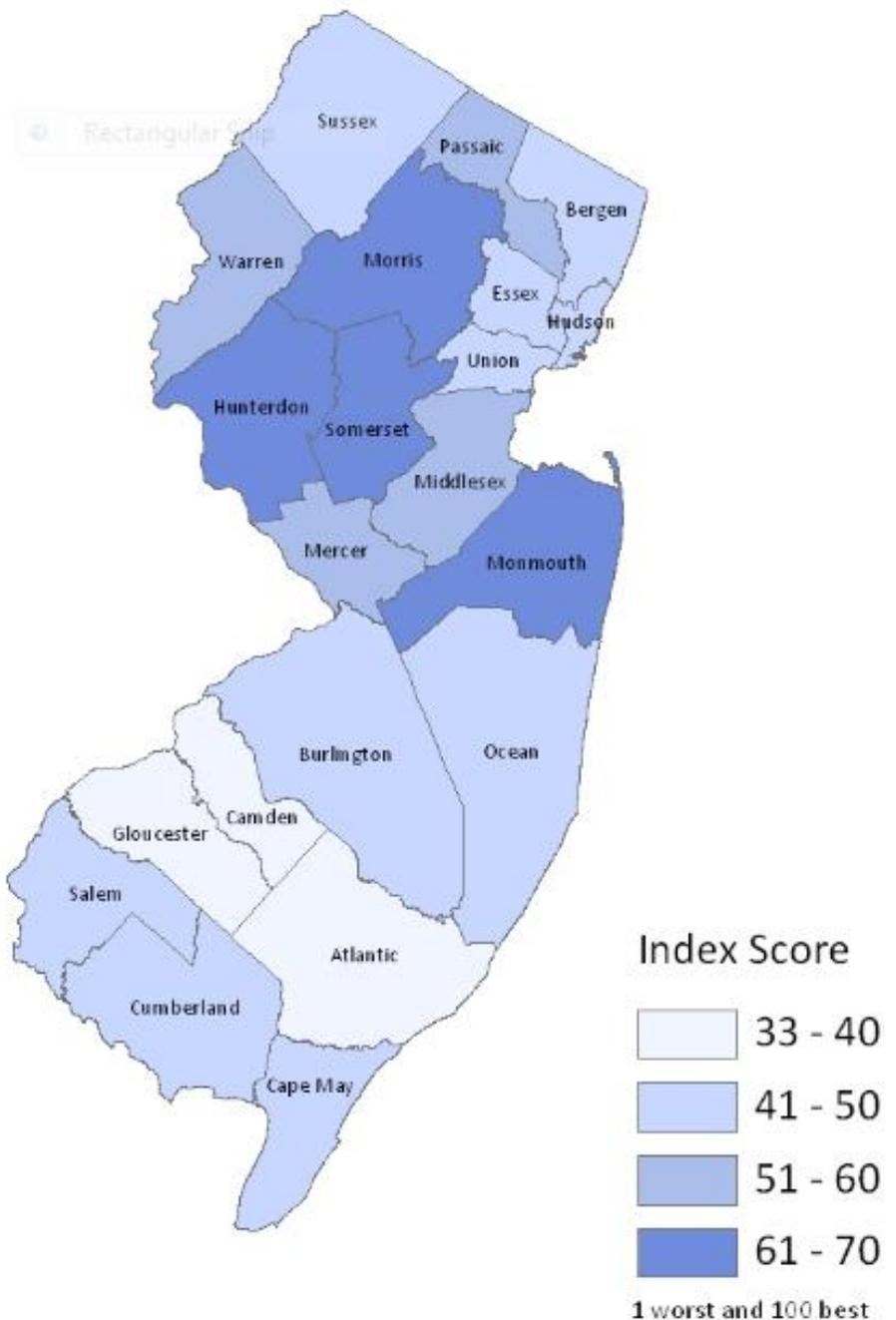
NJ Databank Index

Indexes provide a measure to compare NJ counties with each other and over time.

NJ DataBank

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Health Risk Index



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For 25 years, CDC's Behavioral Risk Factor Surveillance System (BRFSS) has helped states and counties survey U.S. adults to gather information about a wide range of behaviors that affect their health. The primary focus of these surveys has been on behaviors and conditions that are linked with the leading causes of death—heart disease, cancer, stroke, diabetes, and injury—and other important health issues.

The New Jersey Health Risk Index combines seven indicators from the BRFSS survey: Health Status, Exercise, Diabetes, Flu vaccination, Current Smoking, Binge Drinking and Obesity. Then compares how New Jersey counties perform in 2008 and 2010. The results are presented on a scale of 1 (worst) to 100 (best). Details on methodology are listed below.

New Jersey's counties ranged, on a scale of a possible 100 points (best score), from 33 to 70. In 2010, Somerset County had the highest score indicating behaviors leading to good health. Two additional counties scored above 60 points, Hunterdon (68) and Morris (65). Camden County was the least healthy in 2010 with a score of 33 points, while Hudson County was the lowest in 2008 with 27 points. Atlantic County also had a score below 40 points in both years.

Overall, risky health behavior worsened slightly in New Jersey from 2008 to 2010. The Health Behavior Index declined in 9 counties, stayed the same in 3 others and increased by less than 4 percent in 4 others. The bright spots were in Hudson and Passaic counties. Hudson had a 60 percent increase, albeit from 27, the lowest score of all counties in 2008; and Passaic County had a 27 percent increase.

The Indicators:

Each of the indicators measures a health risk behavior. In terms of scoring, the higher the percentage of a poor health behavior, then the

lower the score is in the Index.

Health Status measures the percentage of adults reporting general health as fair or poor. Hudson County had the highest percent of residents reporting fair or poor health status with 21.4 percent; Hunterdon County had the lowest with 6.5 percent. There was a wide range in fluxuation from 2008 to 2010 in terms of health status. 11 counties had decreases, 5 of them by more than 20 percent. The increases were all less than 15 percent.

Health Risk Index

1 = poor health behavior , 100 = good health behavior

	2010 Index	2008 Index	% change
Atlantic	39	39	-1%
Bergen	49	60	-19%
Burlington	48	53	-9%
Camden	33	32	4%
Cape May	42	42	0%
Cumberland *	42	42	0%
Essex	41	50	-18%
Gloucester	40	40	1%
Hudson	44	27	61%
Hunterdon	68	76	-11%
Mercer +	53	64	-17%
Middlesex	54	53	2%
Monmouth	61	61	0%
Morris	65	63	2%
Ocean	47	50	-6%
Passaic	57	45	27%
Salem ~	41	48	-15%
Somerset	70	67	4%
Sussex	50	50	0%
Union	50	52	-3%
Warren	56	40	39%

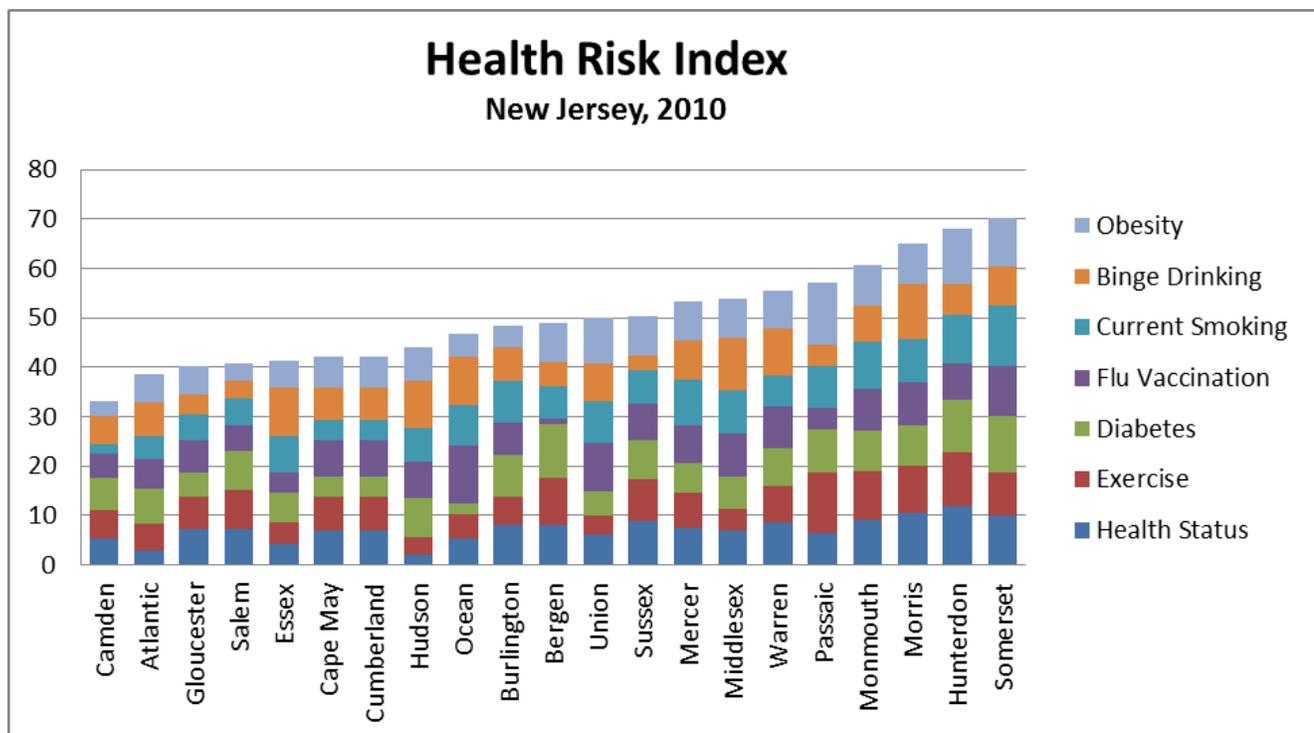
Exercise measures the percentage of adults reporting doing no leisure time exercise or physical activity in the past 30 days. Hudson County had the highest percent of residents reporting no physical activity with 31 percent; Passaic County had the lowest with 15.8 percent. The biggest change from 2008 to 2010 occurred in Passaic County where the percent decreased from 29.7 in 2008 to 15.8 percent in 2010, a 47 percent decrease in the percentage of adults reporting doing no leisure time exercise or physical activity in the past 30 days. 7 other counties saw decreases Bergen County by 22 percent and the others by less than 11 percent.

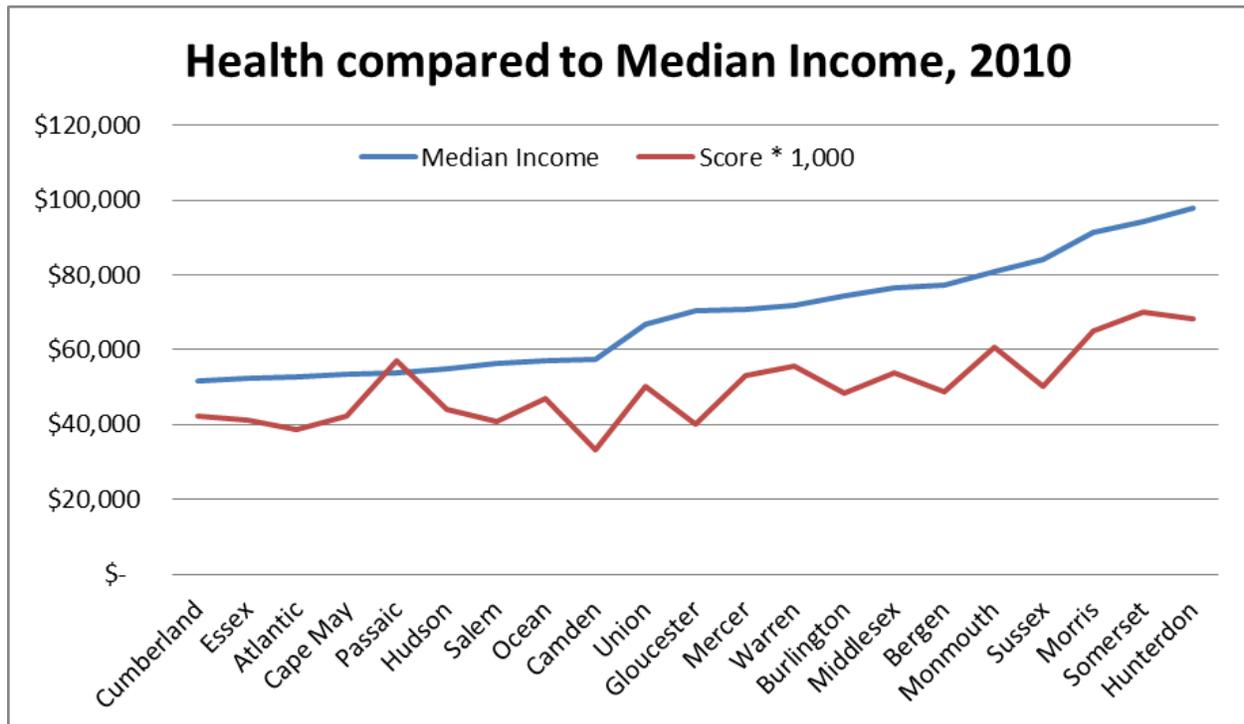
Diabetes measures the percentage of adults told by doctor they have diabetes. There was the least variation between counties on this indicator. Ocean County had the highest percent of residents told they have diabetes with 13.7 percent; Somerset County had the lowest with 4.8 percent. Most counties, 13 out of 21, saw an increase in the percentage of adults told by doctor they have diabetes from 2008 to 2010.

The biggest increase, 59 percent, was in Ocean County. Mercer and Middlesex counties both had increases of 43 percent. Notable improvements were in Atlantic, Passaic and Somerset counties where the rates improved by about 20 percent.

Flu Vaccination# measures the percentage of adults aged 65 or older reporting not having had a flu shot within the past 12 months. While vaccinations may not be as critical to good health as other variables, they are a good general indicator of capacity of local health access which can be crucial. Bergen County had the highest percent of residents reporting not having had a flu shot with 31 percent; Ocean County had the lowest with 26.9 percent. Changes in flu vaccination rates from 2008 to 2010 ranged from an increase of 37 percent in Mercer County to a decrease of 29 percent in Hudson County.

Current Smoking measures the percent of adults reporting having smoked at least 100 cigarettes in their lifetime and currently smoke. There was the greatest variation between counties on this





indicator. Camden County had the highest percent of residents reporting that they currently smoke with 23.6 percent; Somerset County had the lowest with 6.8 percent. 8 counties saw a decrease in the percent of adults reporting smoking from 2008 to 2010. The largest decrease was in Somerset County. The increases ranged from 4 percent in Atlantic to 19 percent in Bergen County.

Binge Drinking measures the percentage of adults reporting having five or more drinks on an occasion, one or more times in the past month. Sussex County had the highest percent of residents reporting having five drinks with 19.9 percent; Morris County had the lowest with 10.4 percent. The greatest change in binge drinking from 2008 to 2010 was a fifty percent increase in Bergen County. At the same time, there was a 35 percent decrease in Morris County.

Obesity measures the percentage of adults reporting Body Mass Index greater than or

equal to 30.0 (18.5 – 24.9 is considered normal). Body Mass Index (BMI) is a number calculated from a person's weight and height. BMI is a fairly reliable indicator of body fatness for most people. Camden County had the highest percent of residents reporting obesity with 31.3 percent; Passaic County had the lowest with 14.8 percent. Changes in obesity from 2008 to 2010 ranged from a 32 percent decrease in Passaic County to a 22 percent increase in Monmouth County.

Health and Income

The link between health and income has been confirmed by several national studies (Williams, 1997; U.S. Census, 2006; Robert Wood Johnson, 2011). The graph below confirms this general trend for New Jersey counties. Comparing the Health Behavior Index score with median income (American Community Survey, 2010), there is a strong, though not perfect, correlation. The main outliers of the trend are Passaic County whose median income is lower than the Index score trend would predict, and Camden County whose median income is higher than the score trends

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would predict. The causation between income and health behavior continues to be debated.

Methodology

In order to create the Index, each of the indicators must be comparable. The first step therefore is to create a common scale across rates, percentages, and other scores. We do this by measuring from the average. Raw indicator scores are converted to “z-scores”, which measure how far any value falls from the mean of the set, measured in standard deviations. The general formula for normalizing indicator scores is:

$$z = (x - \mu) / \sigma$$

where x is the indicator's value, μ is the unweighted average and σ the standard deviation for that indicator and z is the resulting z-score. In order to make the resulting scores more accessible, we translate them from a scale of -3 to 3 to 0 to 20 for each indicator. With five indicators, the total possible points is then 100.

Source:

Risk Trends from the Behavioral Risk Factor Surveillance System, Selected New Jersey Areas, Centers for Disease Control and Prevention.
<http://apps.nccd.cdc.gov/BRFSS-SMART/SelQuickViewChart.asp?MMSa=150&Year=2007>

The BRFSS is a state-based system that is used to gather information through telephone surveys conducted by the health departments of all 50 states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands, with help from CDC. The BRFSS is the world's largest continuously conducted telephone health surveillance system, which conducts more than 400,000 interviews per year.

Data Notes

* Mercer 2008 data not available, substituting with 2006 data.

+ Cumberland - county data not separated out,

substituting with Ocean City MSA data
~ Salem - county data not separated out, substituting with Wilmington, DE-MD-NJ Metropolitan Division data.

Flu Vaccination data was missing for Hudson and Hunterdon counties in 2010, and for Sussex in 2008 and 2010. The average percent was substituted.

Bibliography

American Community Survey, 2010.

Robert Wood Johnson, “Exploring The Social Determinants Of Health Income, Wealth And Health,” Issue Brief Series, April 2011.
<http://www.rwjf.org/files/research/sdohseries2011income.pdf>

Williams DR, Yu Y, Jackson JS and Anderson NB. "Racial Differences in Physical and Mental Health: Socioeconomic Status, Stress and Discrimination." *Journal of Health Psychology*, 2(3): 335–351, 1997.

U.S. Census, “Health Status, Health Insurance, and Health Services Utilization: 2001,” Household Economic Studies, February 2006.
<http://www.census.gov/prod/2006pubs/p70-106.pdf>

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