

# **Health Disparities in Southern New Jersey Counties**

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## **Executive Summary**

This white paper, developed by the South Jersey Institute for Population Health (SJIPH), examines the critical factors influencing the health of nearly two million residents across seven South Jersey counties—Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Salem. Drawing on data from sources such as County Health Rankings, the City Health Dashboard, and NJSHAD, it highlights significant health disparities between Southern New Jersey and the rest of the state.

The evidence is clear: Southern New Jersey faces persistent and severe health disparities:

- **Life Expectancy**: Residents in Southern NJ counties live, on average, four years less than the NJ state average.
- **Premature Mortality**: Southern NJ's premature mortality rate is 50% higher, driven by elevated rates of infant and childhood mortality.
- **Chronic Conditions**: Rates of cardiovascular disease, diabetes, and cancer are significantly higher than in the rest of the state.
- Access to Healthcare: Disparities in healthcare access are stark, with fewer primary care providers and higher rates of unaffordable care.
- **Economic Disparities**: Median household income in counties like Cumberland is 37% below the state average, limiting access to essential resources.
- Food Security: Despite being a prime agricultural area, South Jersey counties report limited access to healthy foods at twice the rate of other NJ counties, contributing to obesity and related diseases.

These disparities stem from deeply rooted systemic inequities, including experiences of economic decline, racial disparities, and barriers to healthcare access. As a result, six of the seven South Jersey counties rank in the bottom half of the state for health outcomes, with Cumberland, Salem, Camden, and Atlantic holding the four lowest rankings.

The findings underscore the need for collaborative, community-based efforts to address these disparities. SJIPH seeks to catalyze such efforts, leveraging a community-based research (CBR) approach to foster meaningful partnerships among academic researchers, public health leaders, and community-based organizations. Since 2021, SJIPH has supported dozens of projects advancing child and family health, improving access to nutritious food, and promoting health equity among vulnerable populations.

This white paper highlights the critical health disparities facing Southern New Jersey and the urgent need for sustained action. By combining local insights with evidence-based strategies, SJIPH aims to forge a path toward a healthier, more equitable future for all South Jersey residents.

### Introduction

## South Jersey Institute for Population Health

The South Jersey Institute for Population Health (SJIPH) is dedicated to advancing health equity and improving the well-being of communities in Southern New Jersey. In keeping with this mission, this white paper aims to highlight key health disparities across the seven South Jersey counties – Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Salem counties.

Drawing on data from various sources —County Health Rankings and NJSHAD—this paper characterizes the health landscape in South Jersey counties in comparison to New Jersey state averages.

The white paper brings attention to major health disparities in our region, and provides a based of evidence for those engaging in collaborations, research, and actions designed to reduce them.

## Background - Socio-economic decline in South Jersey

By most indications, New Jersey (NJ) fares about as well as or better than the US as a whole in terms of health and quality of life. The reality is more complex, however, especially when the attention turns to the South Jersey region. The region, where about one-fifth of New Jerseyans live, has been characterized by economic decline and racial disparities. Southern NJ has struggled to keep pace with the rest of the state. Indeed, in terms of health outcomes, Southern NJ more closely resembles rural or economically challenged regions in the Southeastern US or Appalachia.

Deindustrialization has hit cities like Camden and Atlantic City particularly hard. For instance, once thriving industries (e.g., shipbuilding, textiles, entertainment) have disappeared or departed, leaving behind economic troubles across the communities and region. Camden's population declined by 402% from 1970 to 2000, largely due to factory closures and massive job losses. Likewise, Atlantic City's employment base declined by 16% since its heydays of the 1970s and 80s—some 21,000 jobs were lost [1]. Rural counties such as Cumberland and Salem fared no better. The decline in manufacturing (glass and chemical manufacturing, agriculture, food processing), has lead to economic stagnation, unemployment, and lower household incomes across the region.

Economic troubles are exacerbated by systemic racial disparities across the region. New Jersey has one of the highest racial wealth gaps in the country, with the median household wealth for white families being significantly greater than that of Black and Latino families. This wealth gap reflects broader systemic issues, including disparities in economic opportunities, income, and access to healthcare [2]. This income gap limits the ability to invest in healthcare, education, and other critical areas that promote health and well-being. Moreover, disparities in healthcare access limits the availability of services needed to prevent, remedy, or manage health conditions.

These systemic inequities are reflected in the health outcomes of South Jersey's population, where disparities in access to resources, healthcare, and opportunities appear in rankings that lag behind not only the rest of the state but also resemble those of the nation's most challenged regions.

## **County Health Rankings and Disparities**

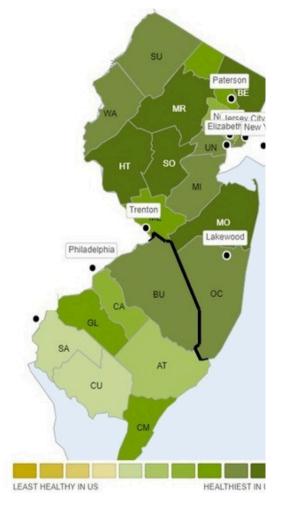
Over time, the economic downturn experienced in Southern NJ has significantly impacted health of its residents -- as shown in Figure 1 [3], the seven South Jersey counties rank among the lowest in the state.

Figure 1 – Health rankings for seven Southern NJ counties, 2010 and 2022 [3].

Seven Southern NJ (SNJ) Counties	NJ County Health OUT		NJ County Rank Health FACTORS	
	2010	2022	2010	2022
Atlantic (AT)	18	18	18	20
Burlington (BU)	8	12	6	8
Camden (CA)	19	19	16	15
Cape May (CM)	16	15	14	14
Cumberland (CU)	21	21	21	21
Gloucester (GL)	13	14	11	11
Salem (SA)	17	20	17	19

<sup>\*</sup> NOTE: 1= highest health ranking; 21= lowest health ranking

7 Southern NJ (SNJ) counties. Lighter shades indicate the least healthy.



The data show low rankings in terms of health outcomes for six of the seven Southern NJ counties; Burlington County ranks highest in Southern NJ, but near the middle overall – 12th out of 21 counties. Moreover, the low rankings have persisted over time. From 2010 to 2022, only Cape May County moved up a notch in the rankings; the other six SNJ counties ranked the same or lower during this period.

The next sections characterize dimensions of health outcomes and health determinants, comparing the 7 counties in Southern NJ to the other 14 NJ counties.

## **Disparities in Health Outcomes**

This section characterizes how the seven-county South Jersey region compares to the rest of the state across major health outcomes and underlying health determinants. Table 1.1 compares mortality rates between South Jersey and other NJ counties, painting a stark picture of the region's health challenges.

Table 1.1. Comparison of Health Outcomes in Southern NJ with Other NJ Counties - Mortality Rates

Health Outcomes*	Southern NJ Counties (n=7)	Other NJ Counties (n=14)	Disparity Ratio (SNJ/ONJ)**
Premature Mortality per 100,000 Population	445	300	1.5
Infant Mortality per 1,000 Live Births	6.2	3.86	1.61
Child Mortality per 100,000 Population	48	32	1.5
Drug Induced Death Rate per 100,000 Population	51	13	3.92
Age Adjusted Death Rate per 100,000 Population due to Cancer	156.5	126.1	1.24
Age Adjusted Death Rate per 100,000 Population due to Heart Disease	193	158	1.22

<sup>\*</sup>All variables in this table are age adjusted.

On average, the life of a South Jersey resident is about four years shorter than their counterparts in the rest of the state, 76 years compared to 80 years. Premature mortality (per 100,000) is 50% higher in South Jersey, largely due to higher rates of infant and childhood morality, along with high rates of mortality due to cancer, heart disease, and misuse of drugs.

High mortality rates is a lagging indicator of the myriad other health problems prevalent in South Jersey, reflecting the cumulative impact of the issues. To different degrees, the prevalence of virtually all chronic conditions is higher in SNJ counties. (Table 1.2). These higher rates reduce both life expectancy and the quality of life lived.

<sup>\*\*</sup> The disparity ratio is a ratio of averages in SNJ compared to averages in the rest of NJ across various health outcomes. The term captures the health inequalities between the two regions.

Table 1.2. Comparison of Health Outcomes in South Jersey with Other NJ Counties - Chronic Conditions

Health Outcomes*	South Jersey Counties (n=7)	Other NJ Counties (n=14)	Disparity Ratio (SNJ/ONJ)
Cardiovascular Disease Prevalence			
Hypertension (%)	33	26	1.27
Angina (%)	3.2	2.8	1.14
MI (%)	4	2.7	1.48
Cancer Prevalence (%)*	6.53	5.54	1.18
Prevalence of Asthma (%)	16	13.3	1.20
Prevalence of Chronic Kidney Disease (%)	2.6	2.3	1.13
COPD Prevalence (%)	6.2	4.7	1.32
Prevalence of Low Birth Weight Infants (%)	8.7	7.5	1.16
Diabetes Prevalence (%)	11.1	8.4	1.32
Mental Health			
Prevalence of Depression (%)	22.5	17.3	1.30
Frequent Mental Distress (%)	18.0	13.0	1.07

<sup>\*</sup> Excludes cancer of the skin. MI: Myocardial Infarction. COPD: Chronic Obstructive Pulmonary Disease. SNJ: Southern New Jersey. ONJ: Other New Jersey. NJ: New Jersey

Table 1.2 shows that South Jersey varies in how it compares to the rest of New Jersey in terms of indicators of chronic conditions. What is most notable, however, is that South Jersey counties perform poorly on all outcome indicators compared to the rest of the state. These poor outcomes are closely tied to disparities in the underlying health determinants that shape access to care, opportunities for healthy living, and overall well-being.

## **Disparities in Social Determinants of Health**

The social determinants of health (SDOH)—e.g., income, education, housing, and access to healthcare—are well-documented and widely recognized as foundational influences on health outcomes.[4] Rather than acting as proximate causes of specific conditions, these determinants broadly shape the environment in which individuals live and work, impacting virtually all aspects of health and well-being. Addressing these determinants is essential for achieving equitable health outcomes and improving population health overall.

Broadly speaking, key social determinants of health pertain to:

- 1. Access to health care services (e.g. primary, specialty, chronic, acute)
- 2. Health behaviors that foster wellness or contribute to illness, and
- 3. The social and economic conditions that underlie people's every day life

Various indicators of these social determinants are shown in Tables 2.1, 2.2, and 2.3.

### **Access to Healthcare**



Health care access provides the most immediate remedy to ill-health, and, at various times, everyone needs access of some sort. Several indicators are available to gauge disparities in access to care (Table 2.1).

Table 2.1 Comparison of Healthcare Access in South Jersey with Other NJ Counties.

Access to Healthcare	Southern NJ Counties	Other NJ Counties	Disparity Ratio (SNJ/ONJ)
Uninsured (%)	7	9	0.78
Population per PCP	1390	1254	1.11
Population per Dentists	1516	1091	1.39
Population per Mental Health Providers	227	395	0.57
No Routine Healthcare Visits (%)	23	26	0.88
Had Flu Vaccinations (%)	45	44	1.02
Could Not Afford Care (%)	11	9.5	1.22

Table 2.1 shows results that are mixed, but that overall suggest healthcare under strain to deliver comprehensive and affordable care. South Jersey counties do as well or better than the rest of NJ in terms of flu vaccinations, routine healthcare, and the number of mental health providers. They do poorly in terms of population per primary care practice and dentists. Although South Jersey has fewer uninsured, 22% more report that they could not afford care. Access may be diminished due to geographic or social distance between the residents and needed health services.

## **Health Behaviors**



Health behaviors are shaped by an individual's upbringing and socioeconomic context as one moves across the life course. For 5instance, one's upbringing and surrounding social norms can encourage or discourage smoking; lower access to smoking cessation programs will diminish the likelihood of current smokers to cease smoking. These conditions likely contribute to a 50% higher smoking prevalence in Southern NJ (Table 2.2); in Atlantic, Cape May, and Salem counties, the prevalence is 69%, 77% and 52% respectively higher than the state average [5].

Table 2.2 Comparison of Health Behaviors in Southern NJ with Other NJ Counties

Health Behaviors	Southern NJ Counties	Other NJ Counties	Disparity Ratio (SNJ/ONJ)
Adult Obesity (%)	34	27	1.26
Smoking (%)	15	10	1.50
Limited Access to Healthy Foods (%)	6	3	2.00
Food Insecurity (%)	10.8	10.3	1.05
Teen Births per 100,000 Population	13	9	1.44

Adult obesity and smoking rates are notably higher in South Jersey – both are key contributors to chronic diseases. The higher rate of teen births further underscores the need for targeted public health interventions in these counties.

Perhaps most notably, food security is about the same in SNJ as in other NJ counties yet "limited access to healthy foods" is two times greater. Many in South Jersey live in "food deserts", far from a supermarket where fresh produce and nutrient-rich foods are available. Living in food deserts is associated with chronic conditions (e.g., obesity, type-2 diabetes) and premature death [6]. It is a sad irony that for many living in counties known for cultivating a wide variety of fruits and vegetables in "the Garden State", access to these foods is limited.

# **Social and Economic Conditions**



The social and economic conditions in which people live and work represent a third, fundamental determinant of health. Adequate resources are required to secure basic necessities such as housing, nutritious food, clean water, education, and reliable transportation. Beyond this basic level, resources are required to promote health and wellness, or for adapting to illnesses that do arise.

Table 2.3 characterizes social and economic disparities between South Jersey counties and other NJ counties. The level of economic resources, as suggested by median household income, is roughly 20% lower in Southern NJ. Although the cost of living is lower in South Jersey, the lower absolute median income puts many residents at greater risk for health problems, while also limiting their ability to effectively manage these conditions. These factors, combined with a prevalence of severe housing problems, contribute to the broader health disparities observed in the region.

Table 2.3. Comparison of Social & Economical Factors in South Jersey and Other NJ Counties.

Social & Economical Factors	Southern NJ Counties	Other NJ Counties	Disparity Ratio (SNJ/ONJ)
No Post Secondary Education (%)	33	27	1.22
Median Household Income (\$)	80,845	99,901	0.81
Unemployment Rate (%)	4.1	3.6	1.14
Severe Housing Problems (%)	17	20	0.85
Without Homeownership (%)	28	38	0.74
Social Associations per 10,000 Population	8.34	7.95	1.05

This section identified substantial health disparities between South Jersey and Other New Jersey counties. When averaging data from the seven SNJ counties, variation in health outcomes and their determinants remain obscured. The following section explores this county-level data in comparison to NJ as a whole.

## **Health Disparities in Seven Counties in South Jersey**

#### **Disparities in Health Outcomes**

There is considerable variation in health outcomes and their determinants across the seven South Jersey counties. Table 3.1 shows the rates for various health outcomes, all of which pertain to different types of mortality, for each SNJ county. In the parentheses next to each health outcome is a disparities ratio that quantifies the difference between the county-level outcome and the state average.

The table shows significant health disparities between each SNJ county and the state average - certain counties fare much worse than others, particularly with respect to premature deaths, substance use-related deaths, and mortality rates for vulnerable populations (infants and children). For instance, child mortality in Salem county is over twice as high as in NJ as a whole; rates in Cumberland county are 76% higher. Infant and child mortality rates are symptomatic of larger challenges in maternal and child health, which also can lead to long-term health issues for survivors. Salem and Cumberland counties exhibit the highest premature mortality rates, at least partially a product of high rates of infant and child mortality, and drug-induced deaths. Disparity ratios for most indicators are high in Cape May, Atlantic, and Camden counties.

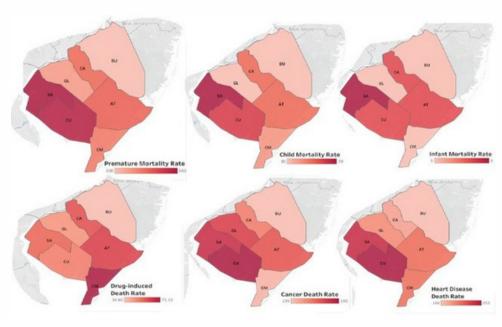
Counties like Salem and Cumberland show particularly alarming patterns, indicating systemic healthcare and socioeconomic challenges. The disparity ratios reflect the need for targeted public health interventions to address these inequities and improve outcomes across the region.

Table 3.1. County-specific Health Outcomes and Disparity Ratios – Mortality Rates (per 100,000).

County	Premature age-adjusted mortality rate (DR)a	Drug-induced Death rates (DR)	Infant Mortality rate (DR)a	Child Mortality (DR)a	Death Rate due to Cancer (DR)a	Death Rate due to Heart Disease (DR) <sup>a</sup>
Atlantic	450 (1.36)	61.6 (1.83)	7 (1.75)	50 (1.47)	164 (1.23)	208 (1.25)
Burlington	330 (1.00)	36.6 (1.09)	5 (1.25)	30 (0.88)	139 (1.05)	166 (1.0)
Camden	440 (1.33)	58.2 (1.73)	7 (1.75)	50 (1.47)	155 (1.17)	182 (1.10)
Cape May	420 (1.27)	71.1 (2.11)	5 (1.25)	40 (1.18)	142 (1.07)	207 (1.25)
Cumberland	540 (1.64)	49.9 (1.48)	7 (1.75)	60 (1.76)	180 (1.35)	253 (1.52)
Gloucester	380 (1.15)	45.7 (1.36)	5 (1.25)	30 (0.88)	169 (1.27)	193 (1.16)
Salem	550 (1.67)	54.7 (1.62)	8 (2.00)	70 (2.06)	174 (1.31)	241 (1.45)
NJ Average	330	33.7	4	34	133	166

<sup>a</sup>DR: Disparities Ratio (between each county and the New Jersey state average). NJ: New Jersey

Figure 2: Variation in Health Outcomes Among Southern NJ Counties – Mortality Rates (per 100,000)\*.



Infant mortality is calculated per 1000 population whereas all other rates are per 100,000 population. All rates are age-adjusted.

#### **Disparities in Chronic Conditions**

Table 3.2 and Figure show the prevalence of chronic conditions across Southern NJ counties, highlighting areas where targeted interventions are needed.

Again, Salem County exhibits particularly high rates of depression, diabetes, and hypertension, while Cumberland County struggles with elevated rates of cardiovascular disease and chronic obstructive pulmonary disease (COPD). While Salem and Cumberland counties show the poorest health outcomes in the state, every South Jersey county falls below the NJ state average on virtually all health outcomes.

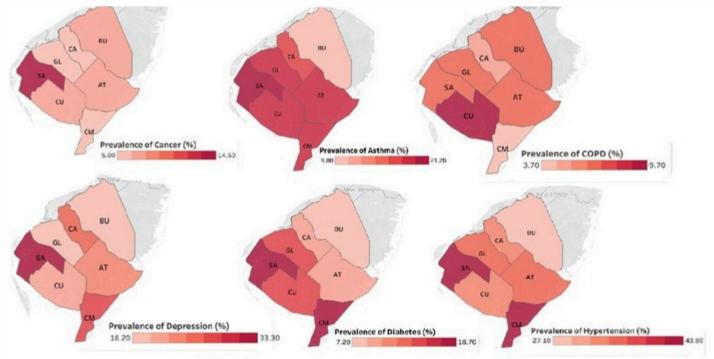
This data underscores the critical health challenges facing Southern New Jersey and the need for focused healthcare strategies.

Table 3.2. Prevalence of Chronic Conditions Across South Jersey Counties Compared to the State Average

County	% Depression	% Diabetes	% Hypertension	% COPD	% Asthma	% Cancer
	(DR)a	(DR)a	(DR)a	(DR)a	(DR)a	(DR)a
Atlantic	22.8	10.3	35.9	6.6	18.3	7.5
	(1.25)	(1.16)	(1.30)	(1.32)	(1.32)	(1.29)
Burlington	19.5	7.2	27.1	6.9	9.8	7
	(1.07)	(0.81)	(0.97)	(1.38)	(0.71)	(1.21)
Camden	24.9	9.9	32	4.6	17	5.6
	(1.37)	(1.1)	(1.15)	(0.92)	(1.22)	(0.97)
Cape May	27.1	17.3	43.5	3.7	19.5	5.8
	(1.49)	(1.94)	(1.56)	(0.74)	(1.40)	(1.0)
Cumberland	20.7	15.1	33.7	9.7	18.7	6.7
	(1.14)	(1.70)	(1.36)	(1.94)	(1.35)	(1.16)
Gloucester	19.7	14.3	35.3	6.5	18.2	5
	(1.08)	(1.61)	(1.27)	(1.3)	(1.31)	(0.86)
Salem	33.3	18.7	43.8	6.3	21.2	14.5
	(1.83)	(2.1)	(1.58)	(1.26)	(1.53)	(2.5)
NJ Average	18.2	8.9	27.8	5	13.9	5.8

<sup>&</sup>lt;sup>a</sup>DR: Disparities Ratio (between the respective county and New Jersey). COPD: Chronic Obstructive Pulmonary Disease.

Figure 3: Heat Maps Showing Various Prevalence Rates of Chronic Diseases Across South Jersey\*



<sup>\*</sup>Prevalence is expressed as a percentage of the respective diseases, with darker shades indicating higher prevalence and greater disparity between SJ counties and the NJ average.

<sup>\*</sup>All percentages are the prevalence of diseases/conditions given in 2021 from the BRFSS survey.

#### **Disparities in Health Determinants**

As discussed, the "social determinants of health" center around access to 1) health services, 2) health behaviors, and 3) the broader social and economic conditions (e.g., class, race, gender) that shape our daily lives and affect both. Various indicators of these social determinants are shown in the tables and figures below. Not surprisingly, disparities in these health determinants largely align with disparities in health outcomes.

#### **Healthcare Access**

Access to healthcare is a key factor influencing health outcomes. Access to care is assessed in terms of insurance status, availability of primary care physicians, dentists, and mental health providers, and access to routine care. In aggregate, the indicators tell us about how easy or difficult it is to access primary care providers for basic services – check-ups, vaccinations, and primary care services. Table 4.1 highlights disparities in access between SNJ counties and the state as a whole.

Table 4.1. Variation in Health Factors among South Jersey Counties – Access to Care.

County	% Uninsured (DR)³	%Could Not Afford Care (DR) <sup>a</sup>	Population per PCP (DR) a	Population per Dentists (DR) a	Population per Mental Health Provider (DR) a	%No Routine Healthcare Visits(DR)	%No Flu Vaccinations (DR) <sup>a</sup>
Atlantic	10(1.25)	14.1 (1.45)	1400(1.17)	1670(1.44)	490(1.44)	16.6(0.66)	56.1(1.0)
Burlington	5(0.63)	8 (0.82)	1320(1.1)	1370(1.18)	100(0.29)	22(0.87)	53(0.95)
Camden	8(1.0)	10.9(1.12)	1020(0.85)	1230(1.06)	260(0.76)	27.3(1.08)	54.6(0.98)
Cape May	8(1.0)	5.8(0.60)	1880(1.57)	1680(1.45)	800(2.35)	18.6(0.74)	57.7(1.03)
Cumberland	11(1.38)	16(1.65)	2560(2.13)	1560(1.34)	760(2.24)	25.3(1.00)	65(1.16)
Gloucester	5(0.63)	8.8(0.91)	1880(1.57)	2240(0.69)	640(1.88)	21.8(01.8667)	52.1(0.93)
Salem	7(0.88)	30.2 (3.11)	4070(3.39)	3260(2.81)	870(2.56)	22.3(0.97)	50.4(0.90)
NJ Average	8	9.7	1200	1160	340	25.2	55.9

**DR**: Disparities Ratio (between the respective county and New Jersey).

PCP: Primary Care Physician. NJ:New Jersey

The table shows considerable variation among SNJ counties in regard to disparities across indicators of healthcare access. Both Atlantic and Cumberland counties show a high percentage of residents who were uninsured and a higher percentage of residents who needed to see a physician but could not afford to. The portion who were uninsured was considerably lower in Salem County, yet over three times as many Salem residents indicated that they could not afford care. Access to health insurance does not guarantee access to care, especially where health care providers are unavailable.

Despite the high ratio of population per physician in SJ counties, residents appear to be on par with the state average in terms of access to *routine* care, physical exams, and vaccinations. This may reflect the effectiveness of primary care physicians and public and community health programs that address the need for routine care and vaccinations. Nonetheless, access to more specialized health services appears limited. For instance, Salem County has the highest population-to-primary care physician ratio in the state, so accessing diagnostic and therapeutic management services for myriad illnesses becomes exceedingly challenging. The disparity ratios for dental and mental health services are high in most SJ counties, and access to other specialty physicians is likely even more limited.

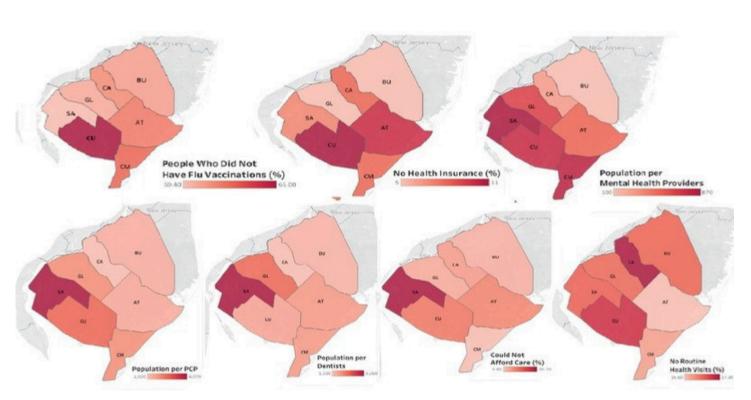


Figure 4: Heat maps showing variation and levels of health care access across South Jersey\*

<sup>\*</sup>Darker shades indicate higher prevalence and greater disparity between SJ counties and the NJ average.

#### **Health Behaviors**

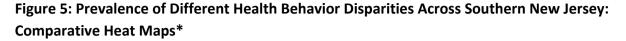
While everyday behaviors surely affect health and well-being, these behaviors are shaped by prior socialization and the current conditions in which people live. The influence of these conditions vary, and contribute to disparities in health behaviors. In short, while residents' behaviors are based on health decisions made every day, these decisions are not simply voluntary choices made by equally capable and autonomous individuals. Rather, health decisions and behaviors are a product of everyday habits shaped by the social and cultural conditions wherein people live and work.

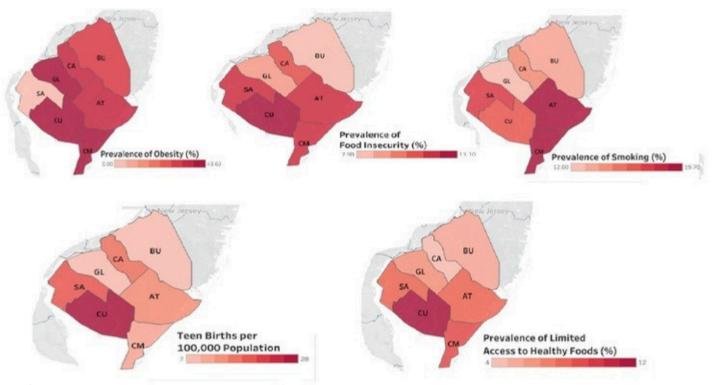
The variation in behaviors is illustrated in Table 4.2 and the heat map shown in Figure 5. For instance, compared to state averages, obesity is high for Atlantic, Cape May, Gloucester, and Cumberland counties. Obesity is a risk factor for various chronic conditions and mirrors the higher rates of diabetes and heart disease in these counties.

Table 4.2. Variation in Health Factors among Southern NJ Counties – Health Behaviors.

County	% Obesity (DR)a	% Smoking (DR) a	% Food Insecurity (DR) a	% Limited Access to Healthy Foods (DR)a	Teen Births per 100,000 Pop (DR)a
Atlantic	39.2 (1.37)	18.8 (1.69)	12.2 (1.14)	8 (2.16)	14 (1.4)
Burlington	27.5 (0.96)	13.6 (1.23)	7.9 (0.74)	5 (1.35)	7 (0.7)
Camden	32.8 (1.15)	14.6 (1.32)	11.3 (1.06)	4 (1.08)	16 (1.6)
Cape May	41.6 (1.45)	19.7 (1.77)	11.9(1.11)	9 (2.43)	12 (1.2)
Cumberland	43.5 (1.52)	16.2 (1.46)	13.1 (1.22)	12 (3.24)	28 (2.8)
Gloucester	38 (1.33)	12(1.08)	8.9 (0.83)	6 (1.62)	7 (0.7)
Salem	-	16.9 (1.52)	12.1 (1.13)	8 (2.16)	18 (1.8)
NJ Average	28.6	11.1	10.7	3.7	10

<sup>&</sup>lt;sup>a</sup>Disparities ratio (between the respective county and New Jersey.





<sup>\*</sup>Darker shades indicate higher prevalence and greater disparity between SJ counties and the NJ average.

Notably, the level of food insecurity hovers near the state average across all seven counties. However, access to healthy foods – e.g., fresh fruits, vegetables – is most limited in the four rural South Jersey Counties – Atlantic, Cape May, Cumberland, and Salem. For instance, residents may access foods from convenience stores, limited-service grocers, or local food outlets (e.g., Dollar Stores, 7-11s). Areas of South Jersey are better described as food swamps rather than food deserts. This is ironic, as these areas produce a disproportionate amount of fruits and vegetables, much of which is exported to other parts of NJ, neighboring states, and national and international markets.

#### **Socio-economic Factors**

Finally, Table 4.3 and Figure 6 show the socio-economic conditions across Southern NJ counties. Overall, county residents' broadband access and social associations are similar to the state average, income disparities highlight ongoing challenges. While Burlington and Gloucester counties are near the NJ average with respect to median household income, other SNJ counties lag significantly behind. Cumberland county's median income is 37% below the state average, which can limit access to health-promoting resources — e.g., nutritious foods, safe housing, physical activity. It also can lead to delayed or foregone healthcare, worsening management of chronic conditions and increased reliance on emergency care.

Table 4.3. Level and Variation in Health Factors among South Jersey Counties – Socioeconomic Conditions.

County	% without any Post-secondary Education (DR)a	\$ Median Income (DR) a	% Unemployment Rate (DR)a	% without Homeownership (DR) a	% Severe Housing Problems (DR) <sup>a</sup>
Atlantic	37	76,100	5.1	32	22
	(1.32)	(0.79)	(1.38)	(0.89)	(1.1)
Burlington	25	100,200	3.3	24	14
	(0.89)	(1.04)	(0.89)	(0.67)	(0.7)
Camden	32	81,400	4.0	35	18
	(1.14)	(0.85)	(1.08)	(0.97)	(0.9)
Cape May	34	80,800	6.5	22	19
	(1.21)	(0.84)	(1.76)	(0.61)	(0.95)
Cumberland	57	60,900	5.1	34	22
	(2.03)	(0.63)	(1.38)	(0.94)	(1.1)
Gloucester	26 (0.93)	97,900 (1.01)	3.7 (1.0)	20 (0.56)	14 (0.7)
Salem	45	76,000	4.6	29	18
	(1.61)	(0.79)	(1.24)	(0.81)	(0.9)
NJ Average	28	96,300	3.7	36	20

<sup>&</sup>lt;sup>d</sup>DR: Disparities Ratio comparing county figures and the New Jersey average. NJ: New Jersey

Counties with a higher percentage of residents who lack post-secondary education (e.g., Cumberland and Salem counties) are more likely to face long-term health disparities. Education influences income potential, health literacy and knowledge about wellness and prevention practices, and the ability to effectively navigate healthcare systems.

All counties except Gloucester and Burlington perform poorly in terms of median income, with these two counties only approximating the state average. Atlantic, Camden, Cape May, Cumberland, and Salem counties fall substantially below the average, which has significant implications for the quality of housing, employment opportunities, food security, and access to care. As discussed, lower income levels can limit access to safe housing, nutritious food, and reliable transportation, while also reducing the ability to afford preventive healthcare or manage chronic conditions, ultimately contributing to poorer health outcomes.

These disparities in income and their effects on access to care are further visualized in the heat maps, which illustrate the variation and levels of healthcare access across South Jersey.

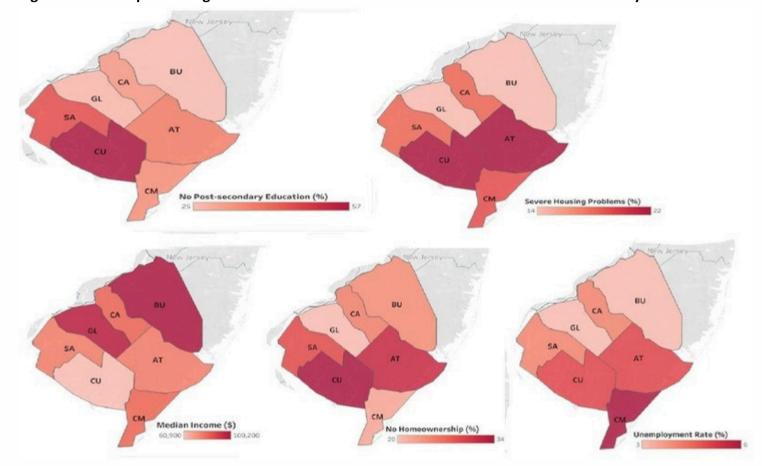


Figure 6: Heat maps showing variation and levels of Socioeconomic Status across South Jersey

The inequitable access to healthcare, unhealthy behaviors, and disparate living and working conditions have a cumulative effect on mortality and longevity, chronic illnesses, and the quality of life of SJ residents.

<sup>\*</sup>Darker shades indicate higher prevalence and greater disparity between SJ counties and the NJ average.

# SJIPH and Community-Based Research: Addressing Disparities to Promote Health Equity

These findings highlight significant health disparities across Southern New Jersey, driven by numerous social conditions that result in health outcomes which, by most indicators, rank as the worst in the state. These outcomes more closely resemble those of economically disadvantaged urban and rural areas in the Southeast or Appalachia. This evidence helps guide decisions about priorities for SJIPH support for advancing health and health equity in South Jersey.

In addition, SJIPH adopts a community-based research (CBR) approach designed to develop sustained, community-centered solutions to health issues [7]. This approach actively engages residents and non-profits with academic researchers to foster research that advances community health and health equity. A CBR approach sits in contrast to a more traditional academic approach – where the process is primarily researcher driven and the community plays a largely passive role – CBR emphasizes collaboration and shared ownership. Traditional research often aims to contribute generalizable knowledge disseminated through conferences and publications, which may only indirectly impact local health outcomes and conditions.

CBR aims to produce generalizable knowledge that can inform broader health practices and policies, while simultaneously ensuring that this knowledge is rooted in and responsive to the needs of local communities. By integrating academic expertise with local insights, CBR bridges the gap between research and practice, fostering solutions that are both evidence-based and community-centered.

#### Social Determinants, Health Equity, and CBR

The community-based research (CBR) approach fosters meaningful collaboration between researchers and communities, creating opportunities for mutual learning, shared ownership, and actionable outcomes. This approach offers several key benefits, including community engagement, broadened perspectives, shared research development, program improvement, capacity building, and a focus on health equity and social determinants.

1) **Community engagement**. By actively engaging communities in the research process, CBR provides a pathway to tailor interventions that are culturally appropriate and that resonate with local needs. With a CBR approach a process develops where researchers engage communities and community organizations to build trust and define research that is mutually beneficial -- research that positively affects local communities while contributing to a larger body of general knowledge that may be useful to other, similar communities. Community engagement in the development and design of research is part and parcel of the trust-building process which is fundamental to the research itself.

- 2) **Broadening perspectives**. During the process of shaping the research, both partners broaden their perspectives on the research process. The academic learns the magnitude of the "real world" health problems communities face concerns that are often poorly captured by statistics. They also learn of the challenges CBOs face in executing programs designed to mitigate them. Researchers also gain an understanding of specific characteristics of the partner and the health conditions of communities the CBO may serve. The researcher is challenged to apply their broader research knowledge to these unique circumstances. At the same time, community partners enlarge their perspectives on how their community fits within a larger social, economic, and political context.
- 3) **Shaping the research**. Community-academic partnerships enable both to define the research problem in a way that can be suitable for both. Engagement enables communities to identify health issues that are relevant to communities themselves. Community partners are essential in the execution of research itself data collection, analysis, and dissemination. Researchers gain an insider's perspective and benefits of community buy-in.
- 4) *Improved program quality and reach*. Community-based research that assesses the quality of programs can offer insight into what is and is not effective. This enables CBOs to adjust their programs to improve their quality and reach. Assessment strategies and program improvement can become continuous as community members appreciate the value of program assessments, along with experience and understanding of evidence-based improvements strategies. Moreover, demonstrating program effectiveness enables communities to secure additional resources needed for program expansion.
- 5) Capacity building. CBR Researchers can often serve as a vehicle for identifying and securing additional resources with communities. These resources include, for instance, technical tools and expertise, access to other CBOs and networks, and funding sources for CBOs. Beyond this, when sustained over time, community partners can further their skills in data collection, analysis, and dissemination, research literacy, and skills in grant writing and advocacy.
- 6) Health equity and social determinants. The health equity framework provides a language around which community organizing and community-based research is activated for generating sustainable, long-run structural change [8]. By speaking the language of health determinants and health equity, community-academic partners come to share an expansive understanding for addressing health disparities and the myriad social determinants that underlie them.

8)See Pastor, et al., 2018

## Conclusion

Data reveal a compelling story about entrenched health disparities in NJ, identifying where they exist and the socio-economic conditions that produce and sustain them. It is no coincidence that residents of areas with low income, high unemployment, food insecurity, and lower levels of education experience disproportionately high rates of chronic illness and premature death. In complex ways, myriad factors undermine the health and well-being of individuals and families in South Jersey.

While comparing the health of different counties, regions, or populations is valuable, perhaps more meaningful insights can be gained by considering the trajectory of health in South Jersey—comparing its current status to its potential future. The resilience of these populations present opportunities for further community-based research initiatives. Qualitative research can tell the story of the history, lives, experiences, and perspectives on health, illness, and health care of South Jersey's diverse populations, shedding light on their struggles and resilience. Meanwhile, quantitative research uncovers the systemic factors driving health disparities and helps assess the effectiveness of community-based interventions aimed at promoting population health.

SJIPH seeks to catalyze these initiatives designed to improve the health and well-being of South Jersey residents going forward. Since 2021 it has supported dozens of projects that combine academic researchers, public health leaders, and community-based organizations to advance child and family health, expand access to healthy foods, and promote health equity among vulnerable populations. These projects provide a critical foundation for addressing specific disparities and provide evidence to support broader policy changes. This white paper highlights the health disparities in New Jersey, and the crucial health consequences for residents of South Jersey. It also highlights the ongoing need for community-based research and action to confront these challenges. By working together, we can forge a path toward a healthier, more equitable future for all South Jersey residents.

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# Appendix: Indicators of health outcomes and health factors

#### **Data Sources**

This report uses data from the County Health Ranking and Roadmaps, a program of the University of Wisconsin Population Health Institution. It employs various measures to assess the health of a county, such as health behaviors, physical environment, access to health care, and clinical care. Data is gathered from multiple sources ranging from government agencies, national and community surveys, healthcare providers, in order to provide a comprehensive assessment of factors influencing county health. The data is then analyzed, providing a snapshot of the ove9rall health of a community and highlighting areas of improvement. Additionally, NJSHAD is used to provide access to a wide range of health-related information and statistics for the state of New Jersey [9]. Data is collected through surveillance systems, surveys, administrative records, and other data collection methods. It monitors health trends, identification of health disparities, and evaluates the effectiveness of public health interventions and policies.

#### **Analytical Approach**

Health disparities in Southern New Jersey were analyzed across five key domains: mortality rates, prevalence of chronic diseases, access to healthcare, health behaviors, and social/economic factors. Each domain consisted of various specific variables that contributed to a comprehensive analysis of health inequities in the region. For this analysis, publicly available data was used and processed through SAS software. Descriptive statistics were calculated to summarize key variables.

To create the "Southern New Jersey" variable, the populations of the seven Southern NJ counties— Atlantic, Burlington, Camden, Cumberland, Cape May, Gloucester, and Salem—were combined. For each variable examined, prevalence was calculated by summing the total cases for that variable across the seven counties and dividing by the combined population of these counties. The same approach was used to compute the

"Other New Jersey" variable by aggregating data from the remaining 14 counties.

To compare the two regions, a disparity ratio was calculated for each variable by dividing the prevalence in Southern NJ by the prevalence in Other NJ. The disparities ratio is akin to a prevalence or odds ratio, with an emphasis on how disparate health outcomes are between two regions. A ratio greater than 1 indicated higher health disparities in Southern New Jersey compared to the rest of the state. This method allowed for clear, quantitative comparison of health outcomes between regions and highlighted specific areas where disparities were most pronounced.

Variable	Description	Source
Adult Obesity	Proportion of adults who are obese based on Body Mass Index (BMI). Age-adjusted	NJSHAD.
Age Adjusted Death Rate per 100,000 Population due to Cancer	Deaths with malignant neoplasm (cancer) as the underlying cause of death. ICD-10 codes: C00-C97	<u>NJSHAD</u>
Age Adjusted Death Rate per 100,000 Population due to Heart Disease	Deaths with heart disease as the underlying cause of death. ICD-10 codes: I00-I09,I11,I13,I20-I51	NJSHAD
Age-Adjusted Drug Induced Death Rate per 100,000 Population	Number of drug poisoning deaths per 100,000 population	NJSHAD
Age-Adjusted Premature Mortality per 100,000 Population	Number of deaths among residents under age 75 per 100,000 population (age-adjusted).	County Health Rankings
Average Life Expectancy(Years)	Average number of years people are expected to live.	County Health Rankings
Child Mortality per 100,000 Population	Number of deaths among residents under age 20 per 100,000 population.	County Health Rankings
COPD Prevalence	Proportion of adults with Chronic Obstructive Pulmonary Disease (COPD).Age-adjusted	NJSHAD
Could Not Afford Care	Proportion of adults who needed to see a doctor but could not due to cost in the last 12 months. Age-adjusted	NJSHAD
Diabetes Prevalence	Proportion of adults with diabetes. Age-adjusted	NJSHAD
Food Insecurity	Percentage of food insecure households in 2020. Age-adjusted	NJSHAD
Frequent Mental Distress	Percentage of adults reporting 14 or more days of poor mental health per month (age-adjusted).	NJSHAD
Had Flu Vaccinations	Proportion of adults who received an influenza vaccination in the past year. Age-adjusted	NJSHAD
Homeownership	Percentage of owner-occupied housing units.	County Health Rankings
Infant Mortality per	Number of infant deaths (within 1 year) per 1,000 live births.	County Health

1,000 Live Births		Rankings
Limited Access to Healthy Foods	Percentage of population who are low-income and do not live close to a grocery store.	County Health Rankings
Median Age	-	American Community Survey
Median Household Income	The income where half of households in a county earn more and half of households earn less.	County Health Rankings
No Routine Healthcare Visits	Proportion of adults who had not visited a doctor for a routine checkup in the past year. Age-adjusted	NJSHAD
Population : Dentists	Ratio of population to dentists.	County Health Rankings
Population : Mental Health Providers	RaRtaiot iof o pfo ppouplautlaiotnio tno t n providers. providers.	<b>ा<u>ण्यासमृत्यक्रिक</u>ोश</b> haeltah ti <u>Rankings</u>
Population : PCP	RatRioat oiof opfo pouplautiloatnio tno tpo physicians physicians	r <u>inguraing yang gan</u> ceare <u>Rankings</u>
Population size	-	County Health Rankings
Post-Secondary Education	Percentage of adults ages 25-44 with no post-secondary education.	County Health Rankings
Prevalence of Angina	Proportion of adults with coronary heart disease. Age-adjusted	NJSHAD
Prevalence of Asthma	Proportion of adults who have ever had asthma. Age adjusted	NJSHAD
Prevalence of Cancers Other Than Skin	Proportion of adults with other types of cancer besides skin cancer. Age-adjusted	NJSHAD
Prevalence of Depression	Proportion of adults who have ever been diagnosed with a depressive disorder (including depression, major depression, dysthymia, or minor depression).  Age-adjusted	NJSHAD

Prevalence of Hypertension	Proportion of adults with high blood pressure (non-gestational) age adjusted.	NJSHAD
Prevalence of Kidney Disease	Proportion of adults with kidney disease. Age-adjusted	NJSHAD
Prevalence of Low Birth Weight Infants	Percent of live births with a birth weight of less than 2,500 grams (approximately 5 lbs, 8 oz).	NJSHAD
Prevalence of Myocardial Infarction (MI)	Proportion of adults who have had a heart attack (Myocardial Infarction). Age-adjusted	NJSHAD
Race/Ethnicity	-	County Health Rankings
Severe Housing Problems	Percentage of households that spend 50 or more of their household income on housing	County Health Rankings
Smoking	Proportion of adults who currently smoke. Age-adjusted	NJSHAD
Social Associations per 10,000 Population	Number of membership associations per 10,000 population.	County Health Rankings
Teen Births per 100,000 Population	Number of births per 1,000 female population ages 15-19	County Health Rankings
Unemployment Rate	Percentage of population ages 16 and older unemployed but seeking work.	County Health Rankings
Uninsured	Percentage of population under age 65 without health insurance.	County Health Rankings