

Objectives

- Determine if a disproportionate number of radiologists practice in high-income versus low-income counties in New Jersey (NJ)
- Identify which vulnerable populations are most in need of more radiologists
- Discuss how these relative differences can ultimately influence health outcomes.

Introduction

- There is a higher incidence of diseases such as coronary artery disease and cancer as well as higher rates of overall mortality in low-income areas.
- Previous nationwide analyses show a disproportionate amount of primary care physicians in urban low-income areas versus high-income areas.
- The proportion of radiologists in the overall physician workforce has declined since 1995.
- There is high state-to-state variation in the number of radiologists per 100,000 people.
- No previous studies have investigated if there is a disproportionate amount of radiologists in high-income versus low-income areas.

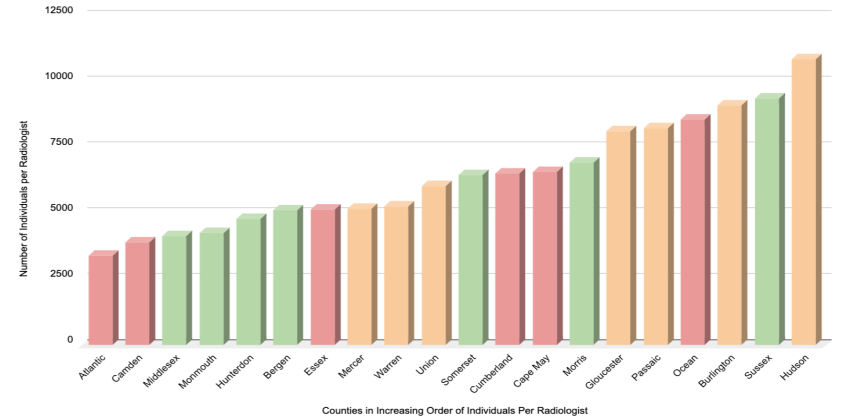
Methods

- Utilized the NJ Health Care Profile, a database overseen and maintained by the Division of Consumer Affairs and queried for all actively practicing radiologists within the state of NJ.
- Median household income and population size of each county for 2021 was obtained from the U.S. Census database.
- The ratio of the population size of each county over the number of radiologists in that county was used as a surrogate marker for disparities in patient care within the state and was compared between counties grouped by levels of income.

County	Median income	Population	# of Radiologists	Individuals / Radiologist
Morris	\$123,727	491,845	71	6927
Hunterdon	\$123,373	124,371	26	4784
Somerset	\$121,695	328,934	51	6450
Monmouth	\$110,356	618,795	146	4238
Bergen	\$109,497	932,202	182	5122
Sussex	\$101,645	140,488	15	9366
Middlesex	\$96,883	825,062	199	4146
Burlington	\$95,935	445,349	49	9089
Gloucester	\$93,208	291,636	36	8101
Union	\$87,369	556,341	92	6047
Mercer	\$85,687	367,430	71	5175
Warren	\$85,163	105,267	20	5263
Hudson	\$79,795	672,391	62	10845
Passaic	\$78,386	501,826	61	8227
Ocean	\$76,644	607,186	71	8552
Cape May	\$76,237	92,039	14	6574
Camden	\$75,485	506,471	130	3896
Salem	\$67,898	62,385	3	20975
Essex	\$67,826	798,975	155	5155
Atlantic	\$66,473	263,670	78	3380
Cumberland	\$58,397	149,527	23	6501

Table 1: Median household income and population (from US CENSUS DATA 2021) & # of radiologists

Figure 1: Number of Individuals in Each County per Radiologist



Results

- Of the 1,186 board certified radiologists actively practicing within the state of NJ:
- 86% are solely diagnostic radiologists and 14% are interventional radiologists
- 44% of radiologists practice within counties that are within the top third of median household income in NJ
- 25% practice within counties in the middle third
- 31% practice within counties in the bottom third.

Discussion and Conclusions

- There is a disproportionate number of radiologists practicing in high income counties as opposed to lower income counties.
- 3 low-income counties: Essex, Camden, and Atlantic County; all exhibited low numbers of individuals per radiologist that rivaled those of higher income counties.
- Other low-income counties should look to what Essex, Camden, and Atlantic county have done to increase radiologist recruitment to levels that rival those of high-income areas.