Breast Cancer Disparities in Screening Age New Jersey Women

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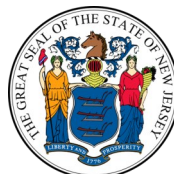
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Similar to the United States (U.S.) overall, breast cancer is the most common cancer diagnosed and the second leading cause of cancer death among women in New Jersey.[1,2,3] An estimated 8,410 new female breast cancer cases will be diagnosed in New Jersey in 2022.[4] New Jersey women have a significantly higher breast cancer incidence rate compared to U.S. women (137.2 vs. 129.1 per 100,000; 2014-2018).[1,5] In contrast, mortality rates are similar for women in New Jersey and the U.S. (20.9 vs. 20.1 per 100,000; 2014-2018).[1,6]

The risk of developing breast cancer increases as women age.[7] The median age at diagnosis among women in the U.S. is 63 years old.[1] However, the median age at diagnosis is lower among Black women compared to White women (60 years vs. 64 years).[1] The five-year relative survival rate for breast cancer in the U.S. is 90.3% with Black women having a lower survival rate compared to White women (82.4% vs. 91.3%).[1] Breast cancer is more common in women than in men with 1% of new cases being male.[1]

The factors that influence breast cancer risk can be grouped into three major categories. First, age-related reproductive factors include age at menarche, onset of menopause, and age at first pregnancy.[7] Early menarche and late menopause are associated with a higher risk of breast cancer, which may be due to longer lifetime estrogen exposure and is more strongly associated with hormone receptor-positive (HR+) breast cancer subtypes than other subtypes.[7,8,9] Each delay of menarche by 2 years is linked with a 10% reduced risk of occurrence of breast cancer.[10] Increased maternal age at first birth is also associated with breast cancer, with an 8% increase (odds ratio 1.08 (95% CI, 1.02-1.14)) for each year after age 23.[11]
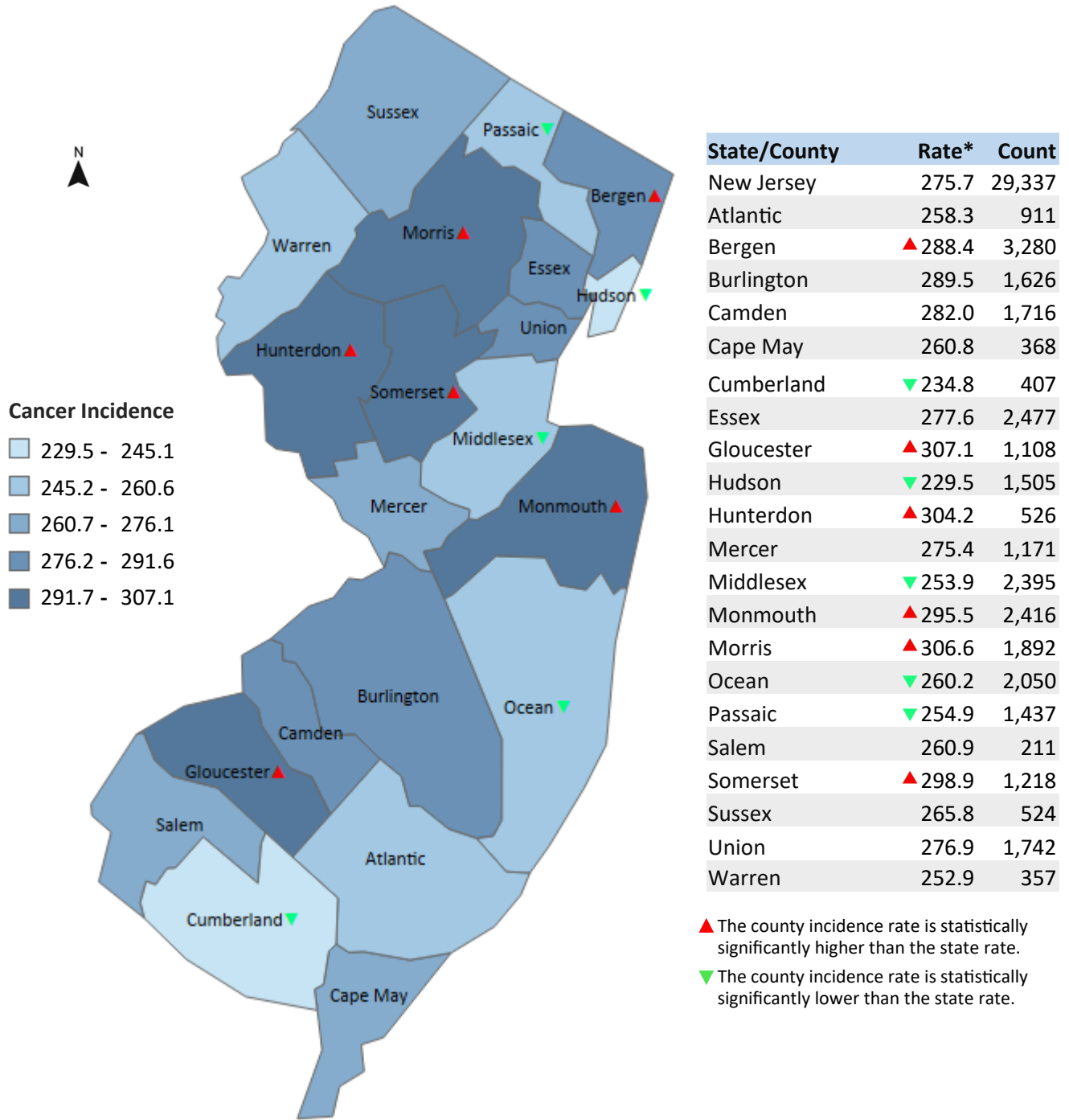
Second, lifestyle factors that increase breast cancer risk include alcohol use, physical inactivity, and excess body weight.[7] Women who drink 3-6 servings of alcohol per week have a 15% increased risk (RR 1.15 (95% CI, 1.06-1.24)) of developing breast cancer compared to non-drinkers.[12] Higher levels of drinking have higher risk; women who drink 3-4 servings of alcohol per day have a 32% increased risk and each additional serving of alcohol increases risk by 7%-9%.[13,14] Alcohol use may be more strongly associated with increased risk of HR+ than HR- breast cancers.[7] Women who engage in regular physical activity have a 10%-12% lower risk of breast cancer compared to women who are inactive.[15] The effects of obesity on breast cancer risk depend on menopausal status: obese premenopausal women are half as likely to be diagnosed with breast cancer compared to women of normal weight, while obese postmenopausal women are 25% more likely to develop breast cancer.[16]

Genetic factors are the third category of breast cancer risk factors and include a family history of breast cancer and inherited genetic mutations.[7] Compared to women without a family history of breast cancer, the risk of breast cancer is about 1.5 times higher for women with one affected first-degree female relative and 2-4 times higher for women with more than one first-degree relative.[7] Women in the general population have about a 10% risk of developing breast cancer by 80 years of age.[7] In contrast, women with *BRCA1* or *BRCA2* genetic mutations have an estimated risk of up to 70% of being diagnosed with breast cancer.[7] *BRCA1* or *BRCA2* mutations are the most common causes of Hereditary Breast and Ovarian Cancer (HBOC) syndrome, an inherited condition that increases the risk of early onset breast, ovarian, pancreatic, prostate, and certain other cancers in affected individuals and across family members.[17] Women with *BRCA*-related HBOC syndrome have a higher risk of developing contralateral breast cancer (40% for *BRCA1*; 26% for *BRCA2*, 20 years after first diagnosis).[18]

Breast cancer is most treatable if found in the early stages. Mammography is a low-dose x-ray procedure that can detect breast cancer before there are signs or symptoms. The American Cancer Society (ACS) recommends breast cancer screening for women aged 45 years and older.[7] For women at average risk of breast cancer, ACS recommends that women aged 45-54 years should receive mammograms every year, and women aged 40-44 years should have the option to start mammograms. For women aged 55 and older, the ACS recommends continuation of annual mammograms or a switch to a mammogram every other year, and to continue breast cancer screening if they are in good health and are expected to live at least 10 more years. For some women at high risk of breast cancer, the ACS recommends annual breast magnetic resonance imaging (MRI) along with annual mammography.

This report characterizes female breast cancer screening, diagnosis, and risk factors in New Jersey by county, using data from the New Jersey State Cancer Registry (NJSCR), the New Jersey Behavioral Risk Factor Survey (NJBRFS), and the Area Deprivation Index (ADI), a measure of socioeconomic status.
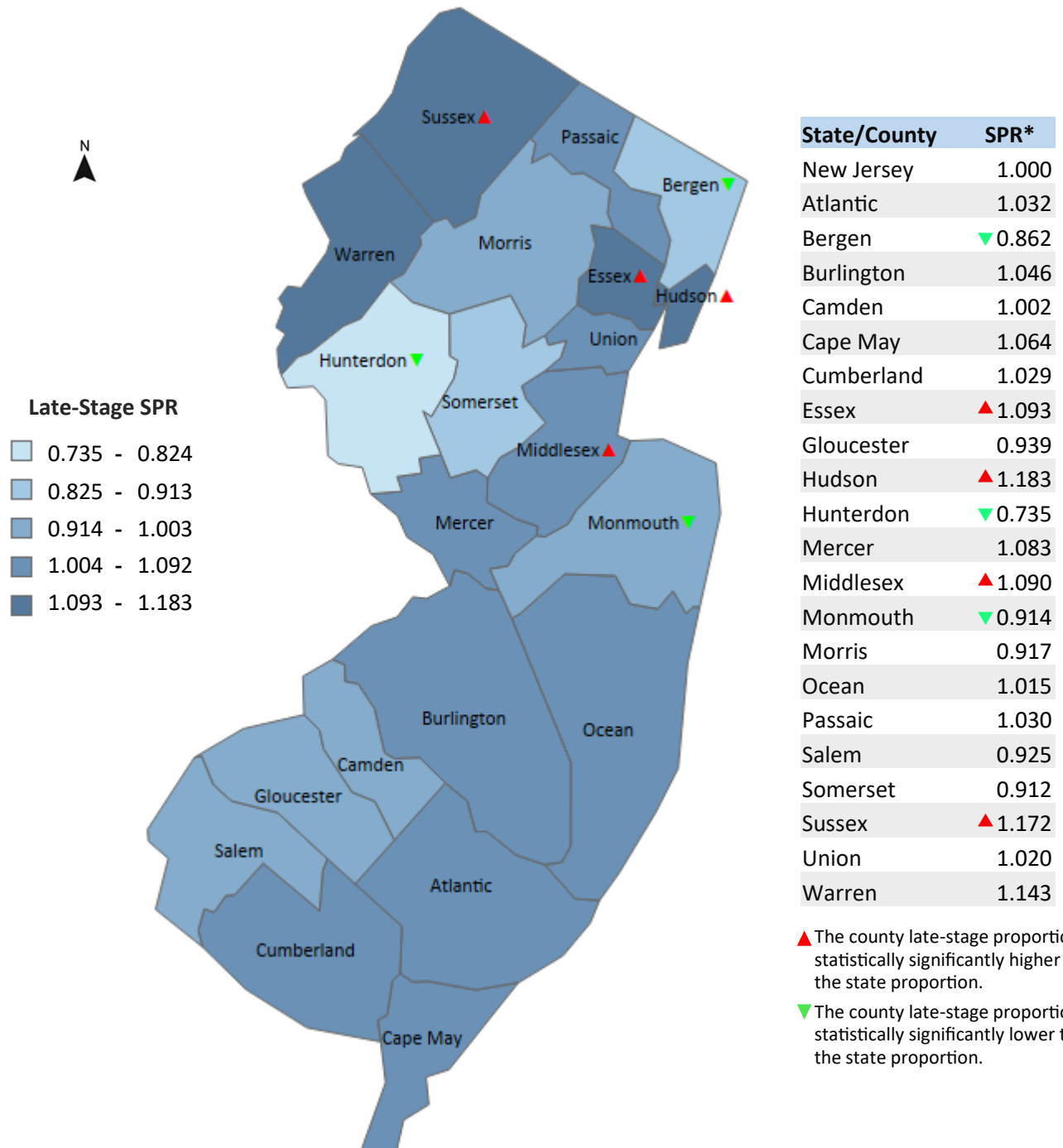
Newly Diagnosed Breast Cancer in Screening Age Women

Cancer Incidence

- ☐ 229.5 - 245.1
- ☐ 245.2 - 260.6
- ☐ 260.7 - 276.1
- ☐ 276.2 - 291.6
- ☐ 291.7 - 307.1

State/County	Rate*	Count
New Jersey	275.7	29,337
Atlantic	258.3	911
Bergen	▲288.4	3,280
Burlington	289.5	1,626
Camden	282.0	1,716
Cape May	260.8	368
Cumberland	▼234.8	407
Essex	277.6	2,477
Gloucester	▲307.1	1,108
Hudson	▼229.5	1,505
Hunterdon	▲304.2	526
Mercer	275.4	1,171
Middlesex	▼253.9	2,395
Monmouth	▲295.5	2,416
Morris	▲306.6	1,892
Ocean	▼260.2	2,050
Passaic	▼254.9	1,437
Salem	260.9	211
Somerset	▲298.9	1,218
Sussex	265.8	524
Union	276.9	1,742
Warren	252.9	357

▲ The county incidence rate is statistically significantly higher than the state rate.

▼ The county incidence rate is statistically significantly lower than the state rate.

- New Jersey women aged 40-74 years had an average invasive breast cancer incidence rate of 275.7 per 100,000.
- Hudson County had the **lowest** breast cancer incidence rate (229.5 per 100,000) and Gloucester County had the **highest** rate (307.1 per 100,000) compared to the other counties in New Jersey.
- Bergen, Gloucester, Hunterdon, Monmouth, Morris, and Somerset counties had **significantly higher** rates of breast cancer compared to New Jersey women overall.
- Cumberland, Hudson, Middlesex, Ocean, and Passaic counties had **significantly lower** rates of breast cancer compared to New Jersey women overall.

* Rates are per 100,000 and age-adjusted to the 2000 US population standard. Incidence data are from the New Jersey State Cancer Registry for invasive breast cancer diagnosed during 2014-2018 in women aged 40-74 years.
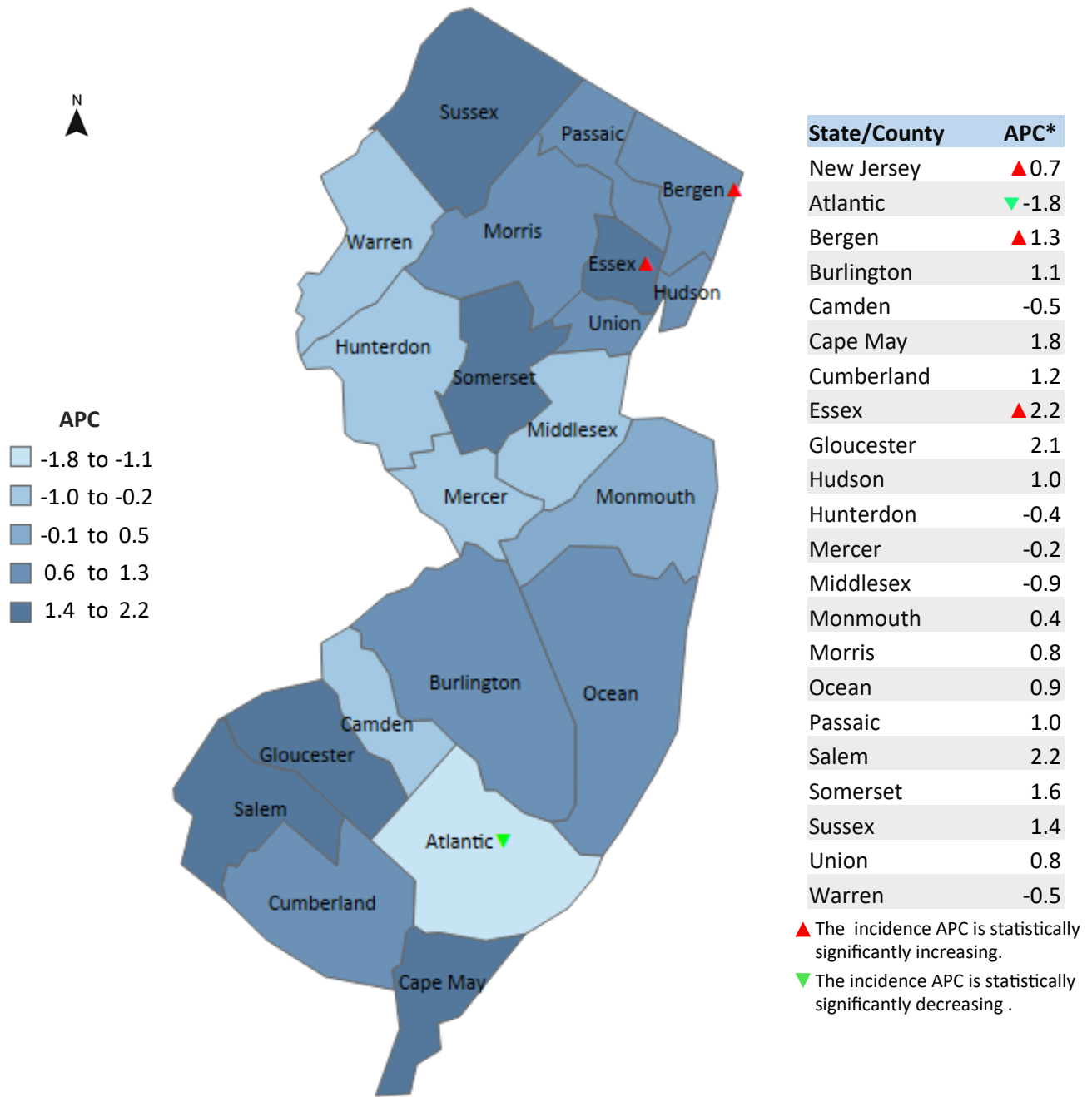
Late-Stage Breast Cancer in Screening Age Women

Late-Stage SPR

- ☐ 0.735 - 0.824
- ☐ 0.825 - 0.913
- ☐ 0.914 - 1.003
- ☐ 1.004 - 1.092
- ☐ 1.093 - 1.183

State/County	SPR*
New Jersey	1.000
Atlantic	1.032
Bergen	▼0.862
Burlington	1.046
Camden	1.002
Cape May	1.064
Cumberland	1.029
Essex	▲1.093
Gloucester	0.939
Hudson	▲1.183
Hunterdon	▼0.735
Mercer	1.083
Middlesex	▲1.090
Monmouth	▼0.914
Morris	0.917
Ocean	1.015
Passaic	1.030
Salem	0.925
Somerset	0.912
Sussex	▲1.172
Union	1.020
Warren	1.143

▲The county late-stage proportion is statistically significantly higher than the state proportion.

▼The county late-stage proportion is statistically significantly lower than the state proportion.

- Counties with a higher proportion of late-stage breast cancer diagnoses compared to the state overall have a Standardized Proportion Ratio (SPR) greater than the New Jersey SPR of 1.000.
- Screening age women have a **significantly higher** proportion of late-stage breast cancer in the counties of Essex (+9%), Hudson (+18%), Middlesex (+9%), and Sussex (+17%) and a **significantly lower** proportion in the counties of Bergen (-14%), Hunterdon (-26%), and Monmouth (-9%), compared to New Jersey overall.
- Counties that have a higher proportion of late-stage breast cancer compared to the state may want to explore ways to improve screening for breast cancer so that it can be identified at an earlier, more treatable stage.

* Standardized Proportion Ratio (SPR) of late-stage breast cancer cases in each county compared to New Jersey. SPRs can be interpreted as the percentage above or below the reference population's (NJ) SPR of 1.000 or 100%. A SPR of 1.08 represents 8% higher than the New Jersey SPR, while a 0.90 SPR represents 10% lower than the New Jersey SPR. Late stage includes regional and distant stages only. The denominator includes all cases (*in situ*, local, regional, distant). Incidence data are from the New Jersey State Cancer Registry for breast cancer (invasive and *in situ* stage) diagnosed during 2014-2018 in women aged 40-74 years.

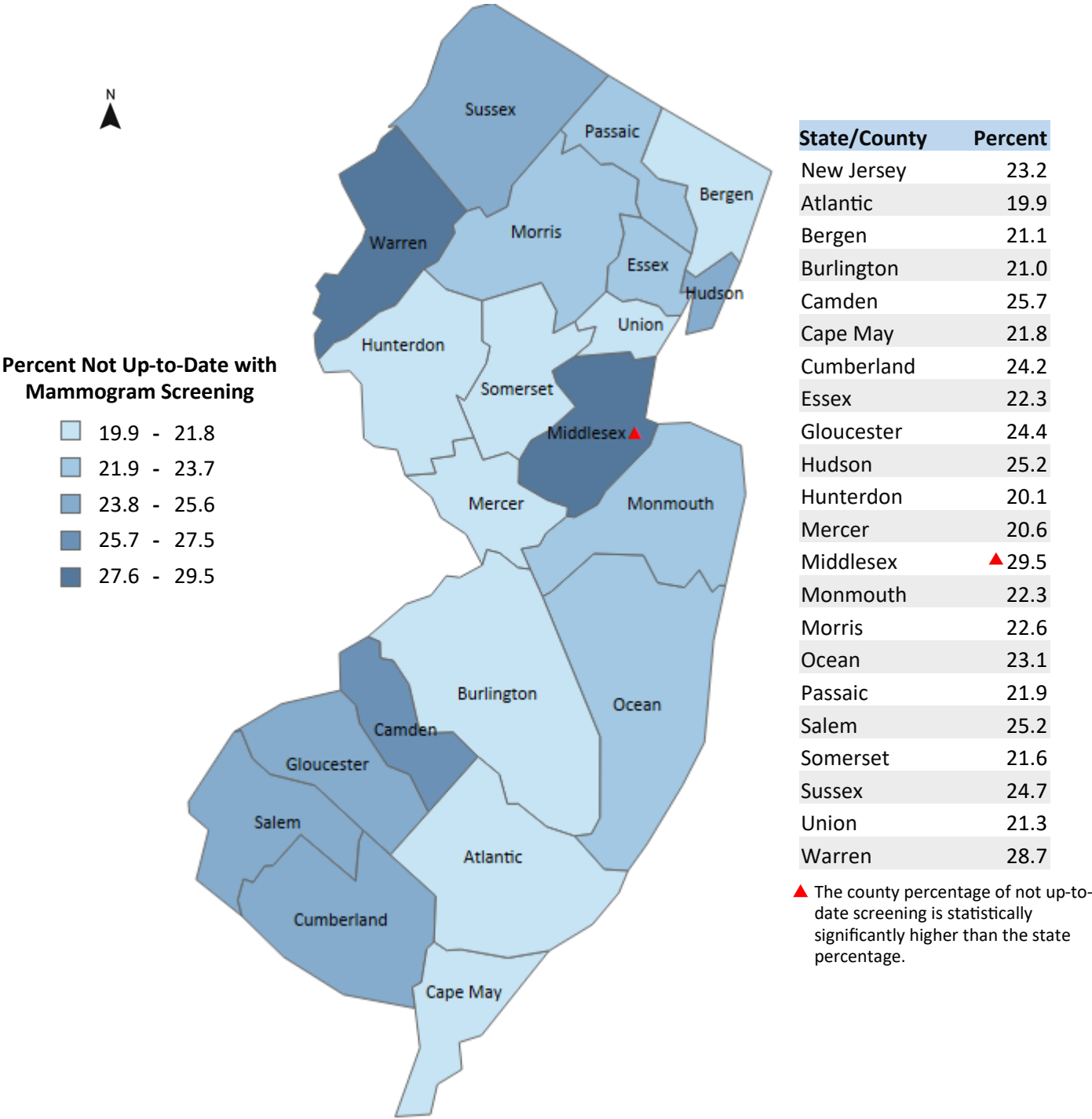# Ten-Year Trends of Newly Diagnosed Breast Cancer in Screening Age Women

State/County	APC*
New Jersey	▲0.7
Atlantic	▼-1.8
Bergen	▲1.3
Burlington	1.1
Camden	-0.5
Cape May	1.8
Cumberland	1.2
Essex	▲2.2
Gloucester	2.1
Hudson	1.0
Hunterdon	-0.4
Mercer	-0.2
Middlesex	-0.9
Monmouth	0.4
Morris	0.8
Ocean	0.9
Passaic	1.0
Salem	2.2
Somerset	1.6
Sussex	1.4
Union	0.8
Warren	-0.5

▲ The incidence APC is statistically significantly increasing.

▼ The incidence APC is statistically significantly decreasing .

APC

- ☐ -1.8 to -1.1
- ☐ -1.0 to -0.2
- ☐ -0.1 to 0.5
- ☐ 0.6 to 1.3
- ☐ 1.4 to 2.2

- Overall, rates of newly-diagnosed breast cancer **significantly increased** in New Jersey screening age women over 10 years, from 2009-2018; however, trends varied by county.

- Essex and Bergen counties had a **significant increase** in newly-diagnosed breast cancer rates over 10 years, while Atlantic County a **significant decrease** over the same time period.

Incidence data are from the New Jersey State Cancer Registry for invasive breast cancer diagnosed during 2009-2018 in women aged 40-74 years.

* APC - Annual Percent Change

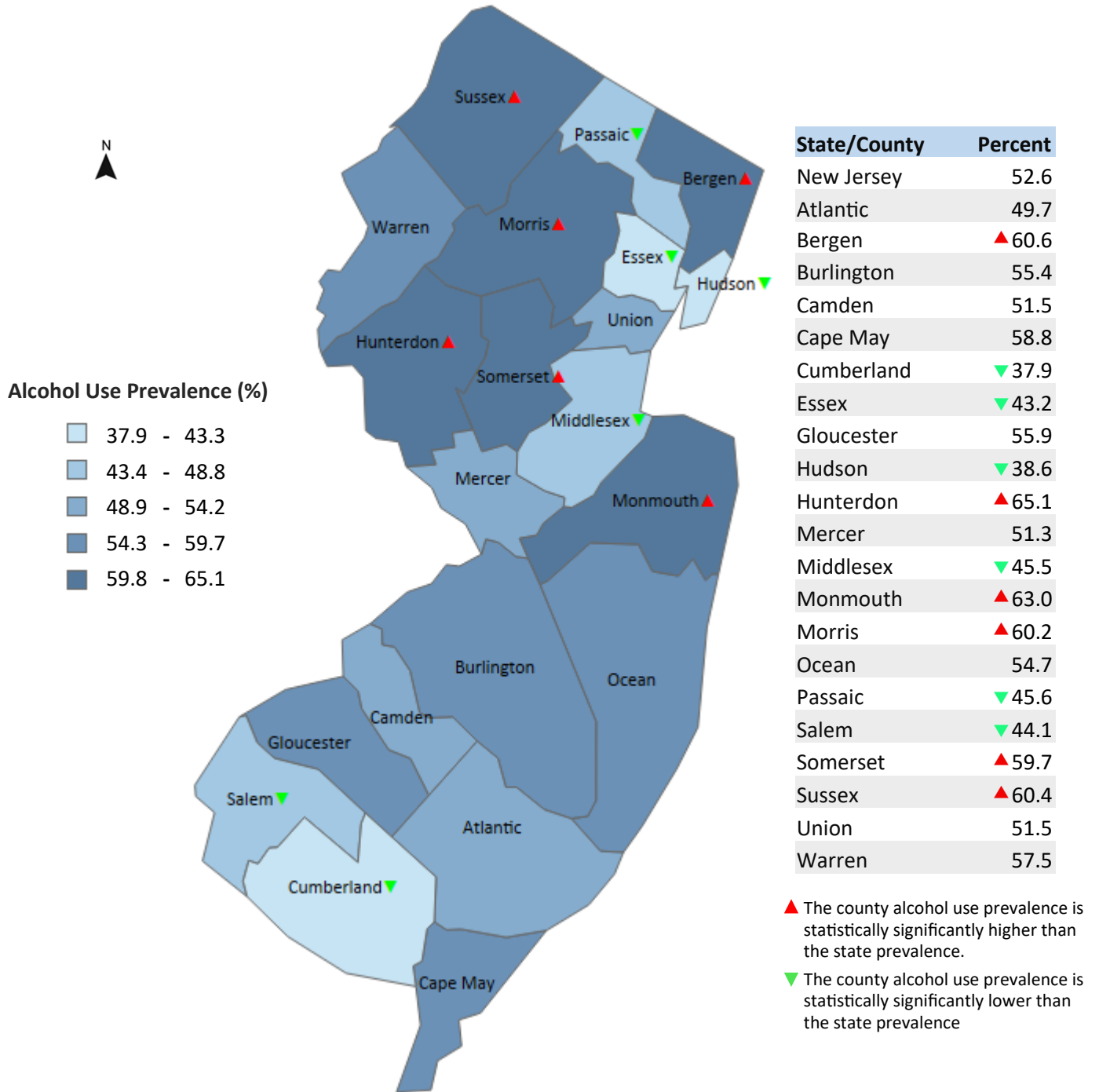# Percentage of Screening Age Women Who Are Not Up-to-Date with Mammogram Screening

Percent Not Up-to-Date with Mammogram Screening

- 19.9 - 21.8
- 21.9 - 23.7
- 23.8 - 25.6
- 25.7 - 27.5
- 27.6 - 29.5

State/County	Percent
New Jersey	23.2
Atlantic	19.9
Bergen	21.1
Burlington	21.0
Camden	25.7
Cape May	21.8
Cumberland	24.2
Essex	22.3
Gloucester	24.4
Hudson	25.2
Hunterdon	20.1
Mercer	20.6
Middlesex	▲29.5
Monmouth	22.3
Morris	22.6
Ocean	23.1
Passaic	21.9
Salem	25.2
Somerset	21.6
Sussex	24.7
Union	21.3
Warren	28.7

▲ The county percentage of not up-to-date screening is statistically significantly higher than the state percentage.

- Among New Jersey women aged 40-74, 23.2% reported being **not up-to-date** with screening mammograms.
- Middlesex County has a **significantly higher** percentage of women who reported being **not up-to-date** with their mammogram screening compared to New Jersey women overall.

Mammogram screening data are from the 2014-2018 New Jersey Behavioral Risk Factor Survey presented as percentages (not age-adjusted) of women aged 40-74 who reported NOT having had a mammogram in the past 2 years.

Alcohol Use in Screening Age Women

Alcohol Use Prevalence (%)
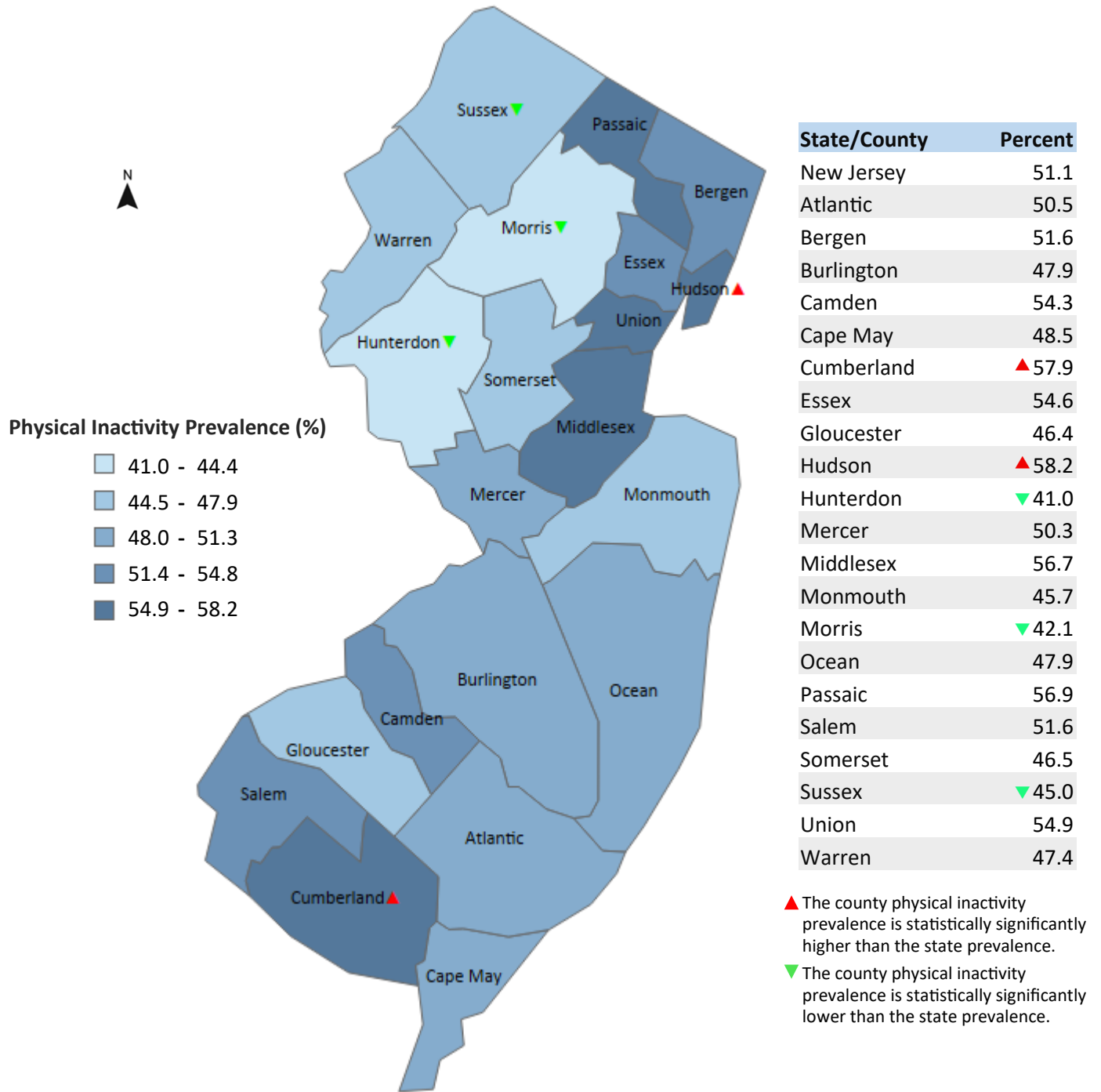
☐	37.9 - 43.3
☐	43.4 - 48.8
☐	48.9 - 54.2
☐	54.3 - 59.7
☐	59.8 - 65.1

State/County	Percent
New Jersey	52.6
Atlantic	49.7
Bergen	▲60.6
Burlington	55.4
Camden	51.5
Cape May	58.8
Cumberland	▼37.9
Essex	▼43.2
Gloucester	55.9
Hudson	▼38.6
Hunterdon	▲65.1
Mercer	51.3
Middlesex	▼45.5
Monmouth	▲63.0
Morris	▲60.2
Ocean	54.7
Passaic	▼45.6
Salem	▼44.1
Somerset	▲59.7
Sussex	▲60.4
Union	51.5
Warren	57.5

▲ The county alcohol use prevalence is statistically significantly higher than the state prevalence.

▼ The county alcohol use prevalence is statistically significantly lower than the state prevalence

- This figure displays alcohol use by county to evaluate this risk factor as it relates to female breast cancer.
- Bergen, Hunterdon, Monmouth, Morris, Somerset, and Sussex counties have a **significantly higher** alcohol use prevalence while Cumberland, Essex, Hudson, Middlesex, Passaic, and Salem counties have a **significantly lower** alcohol use prevalence among screening age women compared to New Jersey.

Alcohol use prevalence data are from the 2014-2018 New Jersey Behavioral Risk Factor Survey presented as percentages (not age-adjusted) of women aged 40-74 who reported drinking alcohol in the past 30 days.
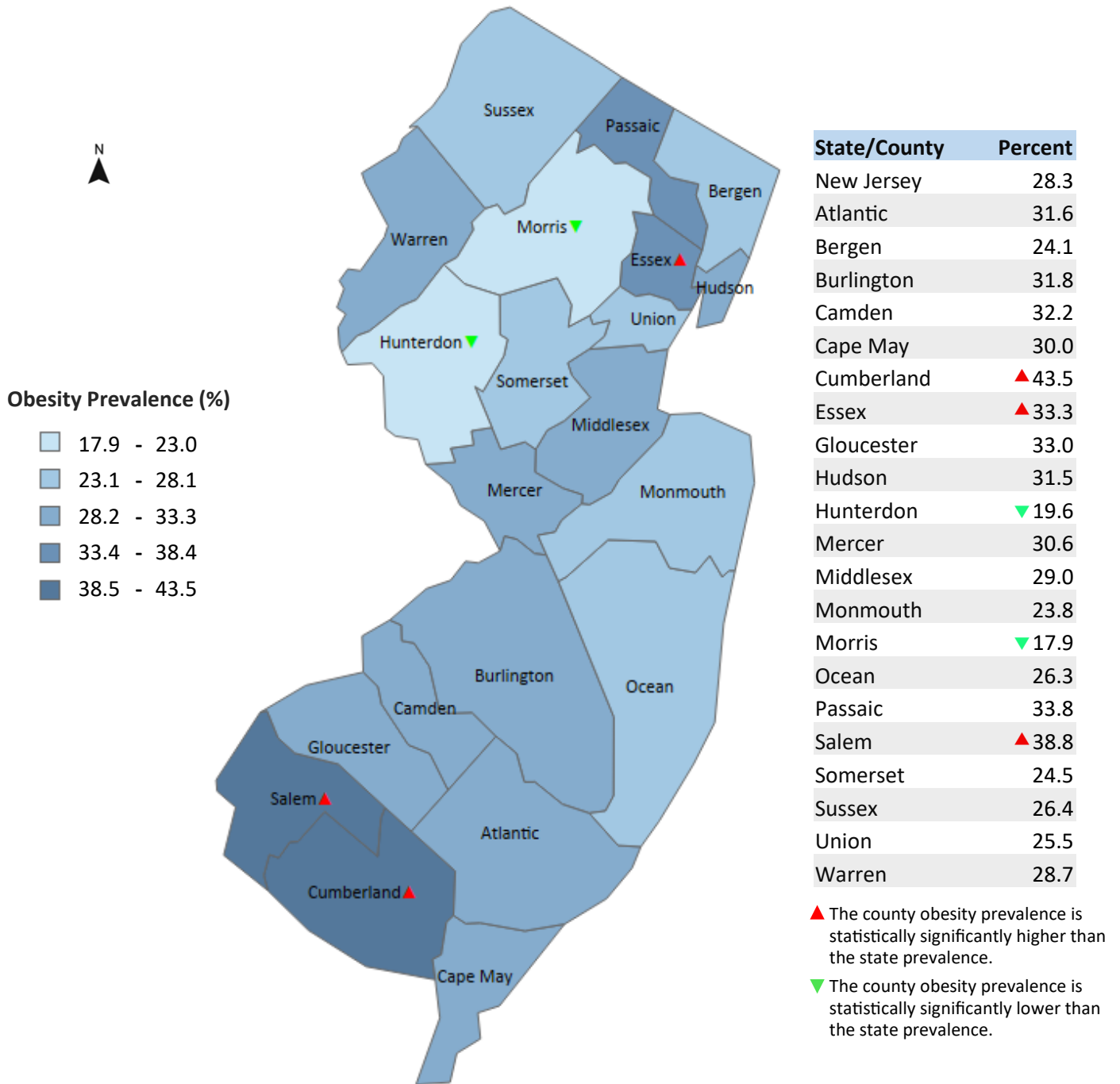
Prevalence of Screening Age Women Who Do Not Meet Physical Activity Recommendations

Physical Inactivity Prevalence (%)
- 41.0 - 44.4
- 44.5 - 47.9
- 48.0 - 51.3
- 51.4 - 54.8
- 54.9 - 58.2

State/County	Percent
New Jersey	51.1
Atlantic	50.5
Bergen	51.6
Burlington	47.9
Camden	54.3
Cape May	48.5
Cumberland	▲57.9
Essex	54.6
Gloucester	46.4
Hudson	▲58.2
Hunterdon	▼41.0
Mercer	50.3
Middlesex	56.7
Monmouth	45.7
Morris	▼42.1
Ocean	47.9
Passaic	56.9
Salem	51.6
Somerset	46.5
Sussex	▼45.0
Union	54.9
Warren	47.4

▲ The county physical inactivity prevalence is statistically significantly higher than the state prevalence.

▼ The county physical inactivity prevalence is statistically significantly lower than the state prevalence.

- This figure displays physical inactivity by county to evaluate this risk factor as it relates to female breast cancer.
- Cumberland and Hudson counties have a **significantly higher** prevalence of women **not meeting physical activity** recommendations, while Hunterdon, Morris, and Sussex counties have a **significantly lower** prevalence compared to New Jersey women overall.

Physical Activity prevalence data are from the 2011-2017 New Jersey Behavioral Risk Factor Survey presented as percentages (not age-adjusted) of women aged 40-74 who reported NOT meeting federal physical activity recommendations, which are defined as NOT participating in at least 150 minutes of light or moderate leisure-time activity per week, 75 minutes of vigorous activity, or 150 minutes per week of an equivalent combination of activity.

Breast Cancer Risk Factor
Obesity Prevalence in Screening Age Women

Obesity Prevalence (%)

☐	17.9 - 23.0
☐	23.1 - 28.1
☐	28.2 - 33.3
☐	33.4 - 38.4
☐	38.5 - 43.5

State/County	Percent
New Jersey	28.3
Atlantic	31.6
Bergen	24.1
Burlington	31.8
Camden	32.2
Cape May	30.0
Cumberland	▲43.5
Essex	▲33.3
Gloucester	33.0
Hudson	31.5
Hunterdon	▼19.6
Mercer	30.6
Middlesex	29.0
Monmouth	23.8
Morris	▼17.9
Ocean	26.3
Passaic	33.8
Salem	▲38.8
Somerset	24.5
Sussex	26.4
Union	25.5
Warren	28.7

▲ The county obesity prevalence is statistically significantly higher than the state prevalence.

▼ The county obesity prevalence is statistically significantly lower than the state prevalence.

- This figure displays obesity prevalence by county to evaluate this risk factor as it relates to breast cancer.
- Cumberland, Essex, and Salem counties have **significantly higher** obesity prevalence among women compared to women in New Jersey overall, with Cumberland and Salem counties having the highest obesity prevalence (above 38.5%).
- Hunterdon and Morris counties have **significantly lower** obesity prevalence among women compared to New Jersey women overall.

Obesity prevalence data are from the 2014-2018 New Jersey Behavioral Risk Factor Survey presented as percentages (not age-adjusted) of women aged 40-74 with Body Mass Index (BMI) values over 30. BMI is calculated based on reported weight and height.

Breast Cancer Risk Factor
Area Deprivation Index (ADI) by County

ADI Ranking

- 3.2 - 4.3 *(Least Deprivation)*
- 4.4 - 5.3
- 5.4 - 6.4
- 6.5 - 7.4
- 7.5 - 8.5 *(Most Deprivation)*

State/County	ADI*
New Jersey	5.8
Atlantic	8.0
Bergen	3.2
Burlington	6.3
Camden	7.9
Cape May	5.8
Cumberland	8.5
Essex	5.9
Gloucester	7.1
Hudson	4.9
Hunterdon	3.4
Mercer	5.9
Middlesex	5.0
Monmouth	3.9
Morris	3.2
Ocean	6.0
Passaic	6.1
Salem	8.5
Somerset	3.8
Sussex	6.2
Union	5.5
Warren	6.6
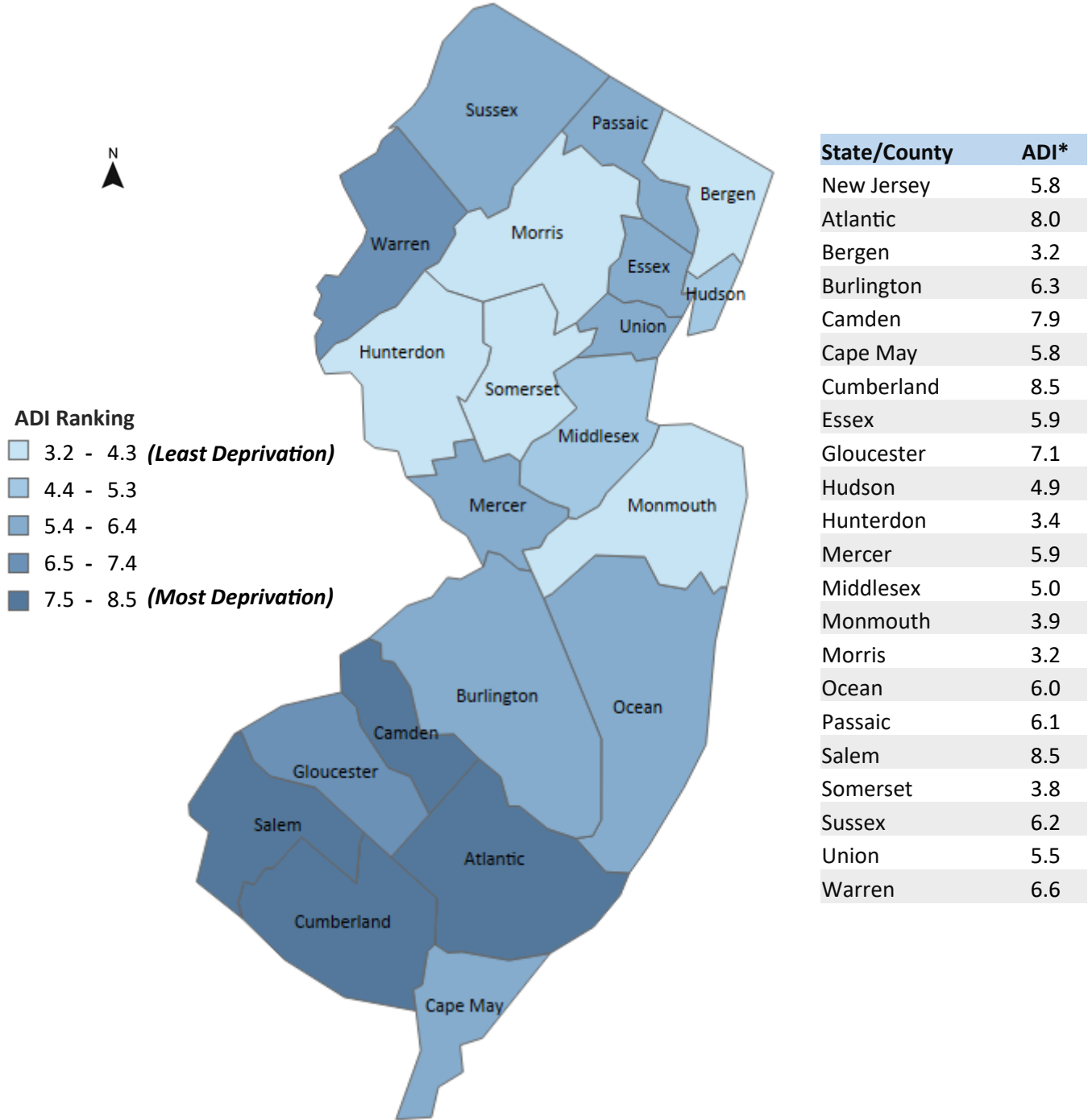
- By reviewing the variation in ADI rankings by county, we can evaluate how socioeconomic status relates to female breast cancer as well as to other risk factors.
- Cumberland and Salem counties have the **highest** level of area deprivation (ranking of 8.5). These counties are among those with the highest prevalence of **not up-to-date** mammogram screening, physical inactivity, and obesity among women.
- Bergen, Hunterdon, Monmouth, Morris, and Somerset counties have **low** (less) area deprivation in New Jersey (rankings below 4.4). Women in these counties have higher rates of newly-diagnosed breast cancer yet lower proportions of late-stage diagnoses (Bergen, Hunterdon, and Monmouth significantly lower than New Jersey) than women in counties with the highest deprivation. These counties are among those with the lowest percentages of **not up-to-date** screening and significantly higher alcohol consumption than New Jersey overall.

The ADI values are state-level decile rankings (from 1 to 10) of socioeconomic deprivation at the census block group level. The deciles are constructed by ranking the ADI from low to high for New Jersey. We calculated the county rankings from the census block group rankings. The census block group ADI data for N.J. were downloaded from the Neighborhood Atlas website, neighborhoodatlas.medicine.wisc.edu.

* A higher deprivation ranking indicates more area deprivation.

DISCUSSION

Breast Cancer Disparities in Screening Age New Jersey Women

Breast cancer burden, screening, and risk factors among screening age women vary across New Jersey. Breast cancer incidence rates are generally higher in North and Central Jersey compared to South Jersey. Among New Jersey women aged 40-74 who responded to the NJBRFS survey, close to 25% report not being up-to-date with screening mammograms. North and Central Jersey have less area deprivation (i.e., higher socioeconomic status (SES)) as measured by the Area Deprivation Index (ADI), lower obesity prevalence, and higher alcohol consumption relative to South Jersey. Breast cancer incidence significantly increased over 10 years in the northeast counties of Bergen and Essex.

The counties of Bergen, Gloucester, Hunterdon, Monmouth, Morris, and Somerset have the highest breast cancer incidence rates in New Jersey. All, with the exception of Gloucester County, have the lowest ADI rankings (highest SES) and the highest percentages of alcohol consumption. A direct relationship between high SES and breast cancer incidence is well established and may be partially explained by a higher prevalence of certain risk factors among high SES women such as later age at first pregnancy, lower parity, hormone therapy use, alcohol consumption, and other factors compared to low SES women.[19,20] Moreover, two studies found that higher community-level SES increases the risk of breast cancer after controlling for individual-level SES factors,[21,22] emphasizing the need for community-based screening outreach and education efforts. These five counties also have the lowest proportions of late-stage diagnoses (Bergen, Hunterdon, and Monmouth significantly lower than New Jersey) and are among the counties with the lowest percentages of not being up-to-date with mammogram screening, further demonstrating the importance of screening to identify breast cancer at early stages.

The northern and central counties of Essex, Hudson, Middlesex, Sussex, and Warren have the highest proportions of late-stage diagnoses. All of these counties, except Essex, are also among those with a high prevalence of not being up-to-date with breast cancer screening when compared to New Jersey overall, indicating a need for increased screening outreach and accessibility.

Over a 10-year period between 2009-2018, New Jersey's invasive breast cancer incidence rates increased significantly by an estimated 0.7% per year. This trend is mirrored in the U.S., which had an average increase of 0.4% from 2010-2019.[23] Possible explanations for the increase include increases in Body Mass Index (BMI) and decreasing number of births per woman.[7]

Healthy New Jersey (HNJ) 2020, the State's health improvement plan, has an objective to increase the percentage of women who receive mammograms, and is based on women ages 50-74.[24] New Jersey is making progress toward the HNJ 2020 target of 87.5%.[24] Among women in this age cohort, for years 2011-2018, 79.5% report receiving mammograms.[25] Broken down by race and ethnicity, Non-Hispanic Black women have the highest prevalence of mammogram screenings (85.8%), while the prevalence for Non-Hispanic White women and Hispanic women is 78.3% and 82.0%, respectively.[25]

These data provide evidence to inform cancer control programs, including those that focus on access to cancer screening, education on the importance of screenings and prompt follow-up after positive screening results, and healthy lifestyle promotion.

The New Jersey Cancer Education and Early Detection (NJCEED) Program provides comprehensive outreach, education and free screening services for breast, cervical, colorectal and prostate cancers for low-income uninsured and under-insured New Jerseyans. Currently, NJCEED has facilities in every New Jersey county. For more information, visit: nj.gov/health/ces/public/resources/njceed.shtml.

Breast Cancer Disparities in Screening Age New Jersey Women

Data Sources and Specifications

New Jersey incidence data for this report were derived from the NJSCR November 2020 submission file. This report presents invasive (not including *in situ* stage) breast cancer cases diagnosed from 2009-2018 in women aged 40-74 years. Breast cancer is defined by the topography codes C500-C509 as detailed in the International Classification of Diseases for Oncology (ICD-O) third edition.

Mammography screening, obesity, alcohol consumption, and physical activity data for women ages 40-74 were obtained from the New Jersey Behavioral Risk Factor Survey (NJBRFS): New Jersey Department of Health, Center for Health Statistics, New Jersey State Health Assessment Data (NJSHAD), accessed at nj.gov/health/shad on September 27, 2021 and January 24, 2022. The estimated percentages have been produced by weighting the sample so that the results better represent the New Jersey population and to adjust for the probability of selection. The NJBRFS survey data used for this report were for years 2014-2018 for mammography screening, obesity, and alcohol consumption and years 2011, 2013, 2015, and 2017 for physical activity, due to limited availability.

The Area Deprivation Index (ADI) is a composite measure of socioeconomic status comprised of 17 U.S. Census indicators in the domains of education, employment, occupation, income, housing, and poverty at the census block group level. ADI data are ranked at two scales: national ADI percentiles (ranked 1-100) and individual state deciles (ranked 1-10). This report uses the state-level decile rankings for New Jersey. The deciles are constructed by ranking the ADI scores from low to high for New Jersey and grouping the block groups into bins corresponding to each 10% range of the ADI. Bin 1 is the lowest ADI (least disadvantaged) and bin 10 is the highest ADI (most disadvantaged). The ADI was first developed by the U.S. Health Resources & Services Administration to measure socioeconomic deprivation at the county level using 1990 census data. The ADI used in this report was developed by Singh[26] and updated to include 2015-2019 American Community Survey data at the census block group level by Kind[27] at the University of Wisconsin. The ADI data for New Jersey were downloaded from the Neighborhood Atlas website, neighborhoodatlas.medicine.wisc.edu.[28,29] We calculated the county rankings from the census block group rankings.

Software

Data analyses were conducted using SEER*Stat versions 8.3.9 and 8.4.0 and Tableau version 2021.4.

Methods

Cancer incidence rates are per 100,000 persons and age-adjusted to the 2000 U.S. population standard. Percentages for NJBRFS data (mammography screening, alcohol consumption, obesity, and physical activity) were not age-adjusted.

The annual percent change (APC) is statistically significant at $p < 0.05$.

The standardized proportion ratio displays the burden of late stage (regional and distant) invasive breast cancer cases in each county compared to New Jersey. Total number of cases are used in the denominator and consist of *in situ*, local, regional, and distant stages. Because unstaged cases were not used for the standardized proportion ratio calculation, caution is advised when interpreting the results.

Choropleth map legend categories were created using the equal interval classification method.

The NJSCR Data Guidelines containing comprehensive data analysis methods and additional information on standardized proportional ratio (SPR) analysis and annual percent change (APC) for trend analysis can be found at nj.gov/health/ces/reports.shtml.

Ninety-five percent confidence intervals were used to assess which counties were statistically significantly different from New Jersey overall, for all measures except the ADI, as confidence intervals for the ADI are not available. The county value is considered statistically significantly different from the New Jersey value if the New Jersey value is outside the range of the county's 95% confidence interval. Counties with values significantly lower than the New Jersey value are identified by the green down-arrow symbol on the maps and in the data tables, indicating that the county has less cancer burden or more reported mammogram screening than New Jersey overall. Counties with values significantly higher than the New Jersey value are identified by the red up-arrow symbol, indicating that the county has more cancer burden or less reported mammogram screening than New Jersey overall.

Except as noted in the discussion of Healthy New Jersey 2020 mammography goals, breast cancer screening percentages in this report are based on women ages 40-74 years old to be consistent with ACS screening guidelines and are presented as being **NOT up-to-date** with screening. For consistent comparison, screening rates are based on women ages 50-75 years old who are **up-to-date** with screening for the paragraph on the Healthy New Jersey 2020 mammography goals in the Discussion section, above.

Acknowledgement

Breast Cancer Disparities in Screening Age New Jersey Women

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