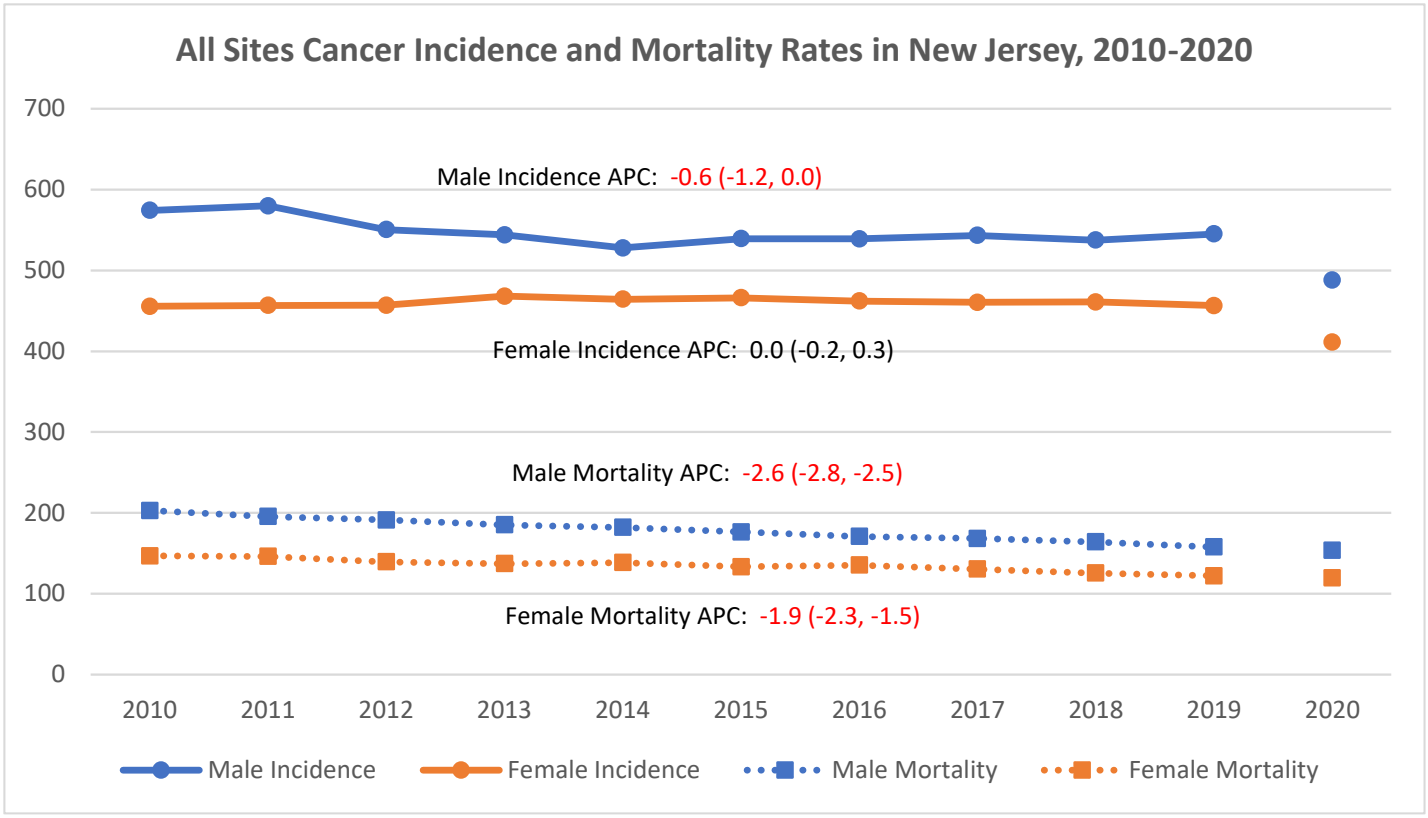
Cancer Incidence Rates Before and During the COVID-19 Pandemic in New Jersey

- Cancer incidence decreased by approximately 10% in New Jersey in 2020 compared to 2019, which was similar to national trends.[1]
- This decrease was due in part to the decline in screenings[2] due to facility closures and patients' fears of going to medical offices for non-emergency procedures.



Data source for cancer incidence: New Jersey State Cancer Registry March 2023 file, NJ Department of Health. Underlying mortality data were provided by the National Center for Health Statistics (www.cdc.gov/nchs). Rates are per 100,000 and age-adjusted to the 2000 US population standard. *APC=annual percent change. 95% confidence intervals are between parentheses. APCs in red are statistically significant. See note at end of report for more information on the data.

- Prior to the COVID-19 pandemic, cancer incidence was decreasing by 0.6% annually from 2010 to 2019 among NJ men. In 2020 incidence decreased sharply (10.5%) due to the COVID-19 pandemic (from 545 to 488 cases per 100,000).
- Similarly, cancer incidence was stable in New Jersey women from 2010 to 2019 and then dropped sharply by 9.9% in 2020 (456 to 411 cases per 100,000).
- Cancer mortality declined by 2.6% and by 1.9% per year in men and women respectively from 2010 to 2019, but did not change significantly from 2019 to 2020.

Change in Invasive Cancer Incidence Rates, 2019-2020, New Jersey

All Cancer Sites by Gender and Race/Ethnicity

Gender	Race/Ethnicity	2019 Rate*	2020 Rate*	% Change	95% CI	
All	All	492.1	442.1	-10.2%	-11.3%	-9.1%
Male	All	545.2	488.2	-10.5%	-12.0%	-8.9%
	Non-Hispanic White	581.2	512.8	-11.8%	-13.6%	-9.9%
	Non-Hispanic Black	574.9	524.2	-8.8%	-13.5%	-3.8%
	Non-Hispanic Asian/Pacific Islander	306.1	263.1	-14.0%	-20.8%	-6.7%
	Hispanic	417.9	382.6	-8.4%	-13.5%	-3.1%
Female	All	456.4	411.2	-9.9%	-11.5%	-8.3%
	Non-Hispanic White	496.3	447.2	-9.9%	-11.9%	-7.9%
	Non-Hispanic Black	423.4	392.7	-7.3%	-11.9%	-2.3%
	Non-Hispanic Asian/Pacific Islander	295.5	267.0	-9.6%	-16.2%	-2.6%
	Hispanic	381.3	323.7	-15.1%	-19.5%	-10.6%

Data Source: New Jersey State Cancer Registry March 2023 file, NJ Department of Health. *Rates are per 100,000 and age-adjusted to the 2000 US population standard. CI= Confidence interval. Percent changes in red are statistically significant. See note at end of report for more information on the data.

- Cancer incidence rates declined significantly from 2019 to 2020 for both men and women in all race/ethnic groups, with decreases ranging from 7% to 15%.
- Decreases in incidence were most pronounced in Hispanic women (15%) and in Non-Hispanic Asian/Pacific Islander men (14%) .

Change in Invasive Cancer Incidence Rates, 2019-2020, New Jersey

All Cancer Sites by Gender and Age

Gender	Age Group	2019 Rate*	2020 Rate*	% Change	95% CI	
					Lower	Upper
Male	00-14 years	18.8	15.9	-15.4%	-33.3%	7.9%
	15-39 years	66.0	61.6	-6.7%	-15.0%	2.5%
	40-64 years	574.9	494.5	-14.0%	-16.5%	-11.4%
	65+ years	2,714.4	2,473.4	-8.9%	-10.9%	-6.9%
Female	00-14 years	14.4	13.9	-3.5%	-26.7%	26.6%
	15-39 years	104.8	94.1	-10.2%	-16.8%	-3.1%
	40-64 years	625.2	561.9	-10.1%	-12.7%	-7.5%
	65+ years	1,789.3	1,614.3	-9.8%	-11.9%	-7.6%

Data Source: New Jersey State Cancer Registry March 2023 file, NJ Department of Health. *Rates are per 100,000 and age-adjusted to the 2000 US population standard. CI= Confidence interval. Percent changes in red are statistically significant.

- Cancer incidence rates declined significantly from 2019 to 2020 in New Jersey men and women aged 40-64 and 65+, as well as women aged 15-39.
- The decrease in incidence in 2020 was most pronounced in men aged 40-64 years.

Change in Top Ten Invasive Cancers, 2019-2020, New Jersey: Women

Cancer Site	2019 Rate*	2020 Rate*	% Change	95% CI	
				Lower	Upper
Breast	143.4	127.5	-11.1%	-14.0%	-8.1%
Lung and Bronchus	47.9	42.1	-12.1%	-16.5%	-7.2%
Colon and Rectum	34.5	32.3	-6.4%	-12.2%	-0.2%
Corpus and Uterus, NOS	32.3	29.5	-8.7%	-14.4%	-2.4%
Thyroid	25.6	19.8	-22.7%	-29.3%	-15.7%
Non-Hodgkin Lymphoma	17.3	15.0	-13.3%	-21.3%	-5.3%
Pancreas	14.0	13.2	-5.7%	-14.3%	4.0%
Melanoma of the Skin	17.0	13.9	-18.2%	-25.9%	-10.0%
Leukemia	11.8	11.8	0.0%	-10.6%	11.7%
Ovary	10.7	10.5	-1.9%	-13.1%	10.1%

Data Source: New Jersey State Cancer Registry March 2023 file, NJ Department of Health. *Rates are per 100,000 and age-adjusted to the 2000 US population standard. NOS= Not otherwise specified. CI= Confidence interval. Percent changes in red are statistically significant.

- Incidence of 7 of the 10 most common cancers in New Jersey women declined significantly from 2019 to 2020, with decreases ranging from 6% for colorectal cancer to 23% for thyroid cancer.
- Incidence of pancreas and ovarian cancers and leukemia did not change significantly in 2020.

Change in Top Ten Invasive Cancers, 2019-2020, New Jersey: Men

Cancer Site	2019 Rate*	2020 Rate*	% Change	95% CI	
				Lower	Upper
Prostate	153.1	137.0	-10.5%	-13.3%	-7.6%
Lung and Bronchus	55.2	48.9	-11.4%	-16.3%	-6.5%
Colon and Rectum	46.8	39.4	-15.8%	-20.9%	-10.5%
Urinary Bladder	36.4	35.8	-1.6%	-8.2%	5.0%
Non-Hodgkin Lymphoma	26.0	23.6	-9.2%	-16.4%	-1.5%
Melanoma of the Skin	28.4	22.6	-20.4%	-26.8%	-14.1%
Kidney and Renal Pelvis	24.2	19.5	-19.4%	-26.2%	-12.4%
Leukemia	20.4	17.8	-12.7%	-20.6%	-4.1%
Oral Cavity and Pharynx	18.0	15.9	-11.7%	-19.7%	-2.7%
Pancreas	17.1	16.4	-4.1%	-12.9%	5.9%

Data Source: New Jersey State Cancer Registry March 2023 file, NJ Department of Health. *Rates are per 100,000 and age-adjusted to the 2000 US population standard. CI= Confidence interval. Percent changes in red are statistically significant.

- The incidence of 8 of the 10 most common cancers in men declined significantly from 2019 to 2020, with the most pronounced decreases in melanoma of the skin (20%) and kidney and renal pelvis incidence (19%).

Note on New Jersey State Cancer Registry data: Statistics for other genders are not presented due to small numbers. Initial data report as of 3/23; rates and counts may change slightly as subsequent cancers or additional information are reported. Due to 2020 Census delays, preliminary estimates were used as population denominators for calculating cancer rates for 2010-2020. For more information, see https://seer.cancer.gov/popdata. Persons of Hispanic ethnicity may be of any race or combination of races. Persons of other and unknown races are included in the All Races groups.

References:

1. National Cancer Institute, Surveillance, Epidemiology and End Results Program. Impact of COVID on 2020 Cancer Incidence Data. https://seer.cancer.gov/data/covid-impact.html

2. Chen, R. C., Haynes, K., Du, S., Barron, J., & Katz, A. J. (2021). Association of cancer screening deficit in the United States with the COVID-19 pandemic. *JAMA Oncology*, *7*(6), 878. https://doi.org/10.1001/jamaoncol.2021.0884