

RUTGERS

Cancer Institute
of New Jersey

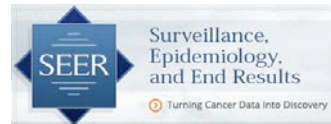
RUTGERS HEALTH

Current HPV-Related Cancer Rates

New Jersey State Cancer Registry



*Antoinette M. Stroup, PhD, Director
HPV NJ Roundtable
October 11, 2017
American Cancer Society
South Brunswick, NJ*



Number of HPV-Associated and HPV-Attributed Cancer Cases Per Year¹

Cancer site	Average number of cancers per year in sites where HPV is often found (HPV-associated cancers)	Percentage probably caused by any HPV type ^a	Number probably caused by any HPV type ^a	Percentage probably caused by HPV types 16/18 ^b	Number probably caused by HPV types 16/18 ^b	Percentage probably caused by HPV types 31/33/45/52/58 ^c	Number probably caused by HPV types 31/33/45/52/58 ^c
Cervix	11,693	91%	10,600	66%	7,700	15%	1,700
Vagina	819	75%	600	55%	500	18%	100
Vulva	3,671	69%	2,500	49%	1,800	14%	500
Penis	1,181	63%	700	48%	600	9%	100
Anus	5,229	91%	4,800	79%	4,200	8%	400
Female	3,416	93%	3,200	80%	2,700	11%	400
Male	1,813	89%	1,600	79%	1,400	4%	100
Rectum	772	91%	700	79%	600	8%	100
Female	528	93%	500	80%	400	11%	100
Male	244	89%	200	79%	200	4%	<100
Oropharynx	16,479	70%	11,600	60%	9,900	6%	900
Female	3,203	63%	2,000	51%	1,600	10%	300
Male	13,276	72%	9,600	63%	8,400	4%	600
TOTAL	39,844	79%	31,500	63%	25,300	10%	3,800
Female	23,330	83%	19,400	63%	14,700	13%	3,100
Male	16,514	73%	12,100	64%	10,600	4%	700

^aHPV types detected in genotyping study; most were high-risk HPV types known to cause cancer (Saraiya M et al. [U.S. assessment of HPV types in cancers: implications for current and 2-valent HPV vaccines.](#) *J. Journal of the National Cancer Institute* 2015;107:djv086).

^bHPV types 16/18 can be prevented by the bivalent, quadrivalent, and 9-valent HPV vaccines.

^cHPV types 31/33/45/52/58 can be prevented by the 9-valent HPV vaccine.

¹ <https://www.cdc.gov/cancer/hpv/statistics/cases.htm>

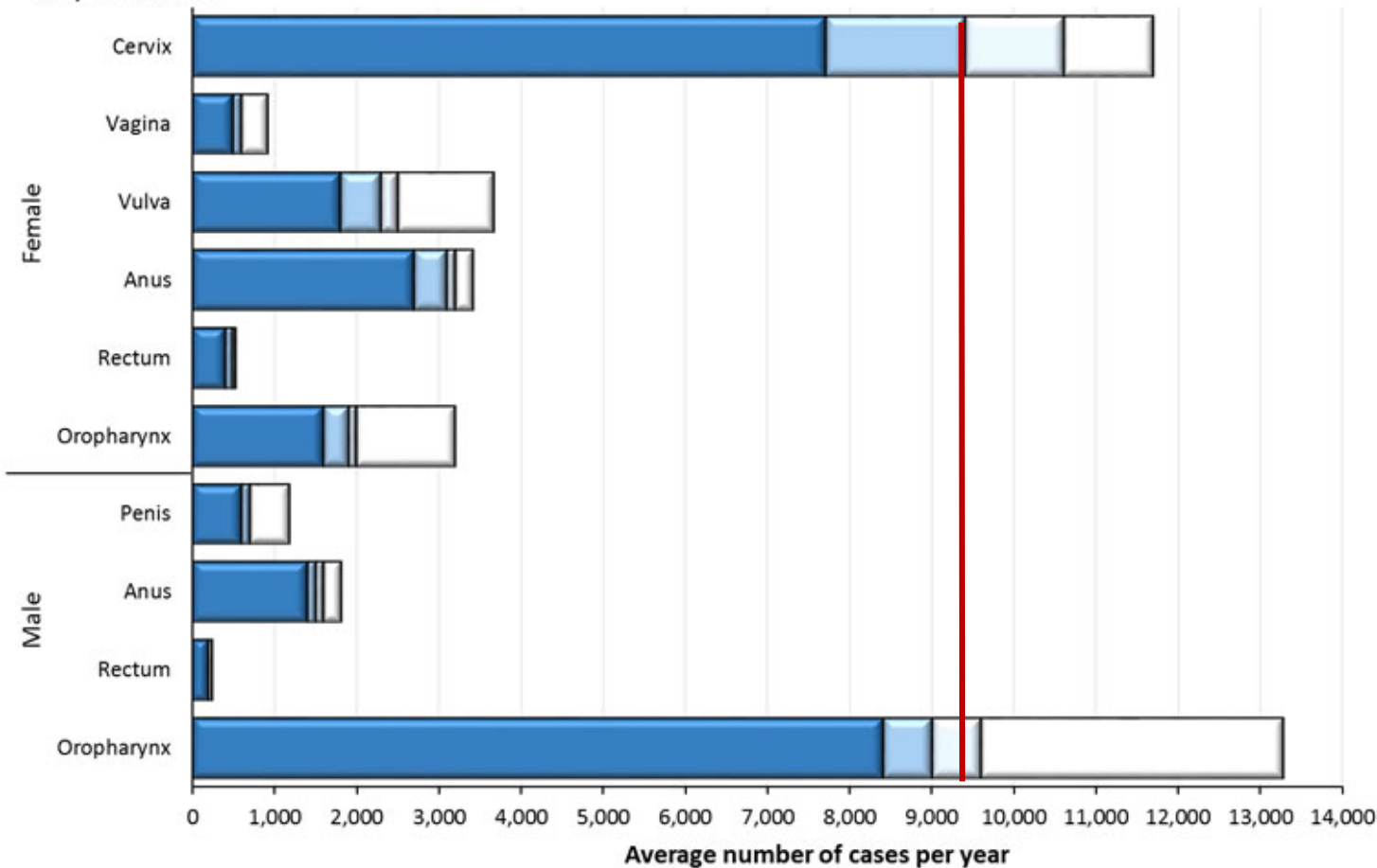
Number of HPV-Associated and HPV-Attributed Cancer Cases that can be Prevented¹



can be prevented by bivalent and quadrivalent vaccines

can be prevented by 9-valent vaccine

Sex / Cancer Site



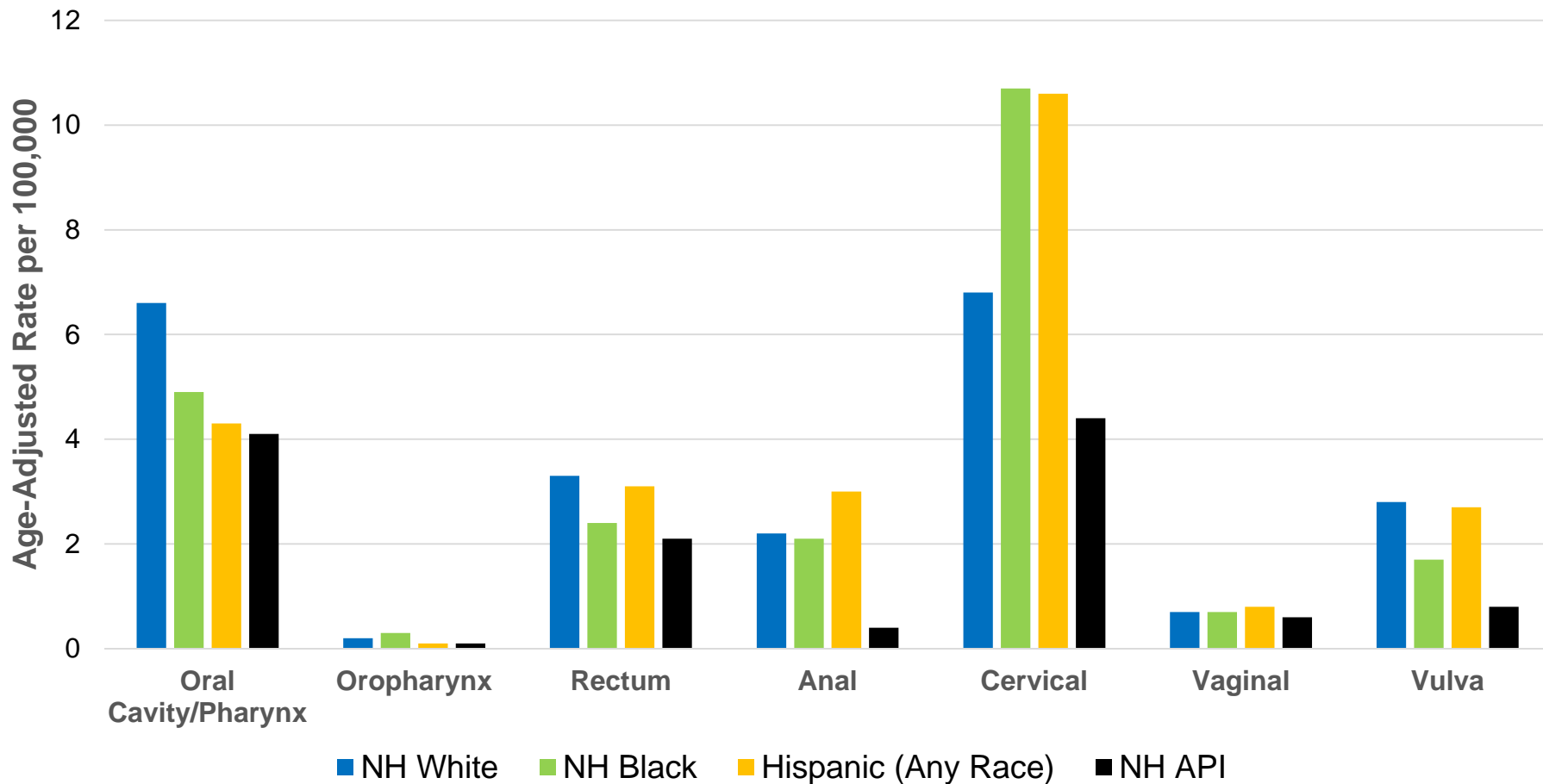
¹ <https://www.cdc.gov/cancer/hpv/statistics/cases.htm>

New Jersey vs. US Average Annual Age-Adjusted Cancer Incidence Rates*: HPV-Associated Cancers By Gender (All Race/Ethnicities), 2010-2014

Cancer Type	FEMALE		MALE	
	NJ	US SEER 17	NJ	US SEER 17
	Rate (Count)	Rate (Count)	Rate (Count)	Rate (Count)
Invasive Cervical	7.6 (1,902)	7.4 (14,923)	--	--
Vaginal	0.7 (203)	0.7 (1,659)	--	--
Vulvar	2.6 (734)	2.5 (5,500)	--	--
Anal	2.1 (596)	2.1 (5,221)	1.3 (313)	1.5 (2,914)
Rectum	6.9 (1,959)	7.0 (15,646)	10.9 (2,505)	11.2 (21,915)
Oral Cavity & Pharynx	6.0 (1,688)	6.3 (14,019)	15.6 (3,726)	17.0 (33,882)
Oropharynx	0.2 (61)	0.2 (410)	0.8 (191)	0.7 (1,454)
Penis	--	--	0.9 (185)	0.9 (1,623)

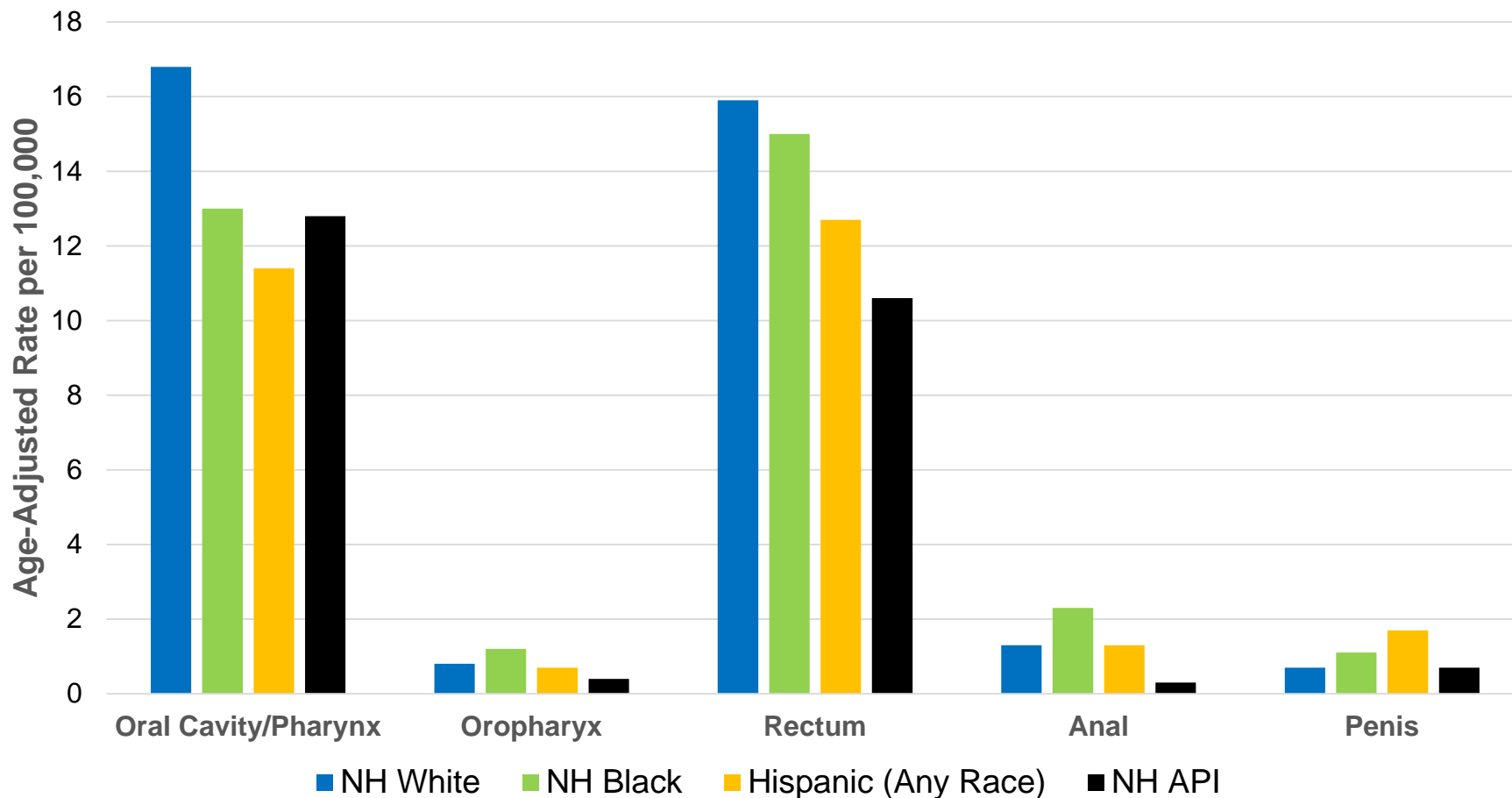
* Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2016 Sub (2000-2014) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2015 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, released April 2017, based on the November 2016 submission

NJ Age-Adjusted Incidence Rates 2010-2014 by Cancer Type and Race/Ethnicity: **Female** HPV-related Cancers



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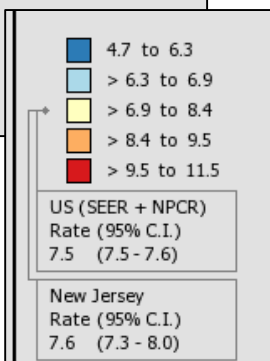
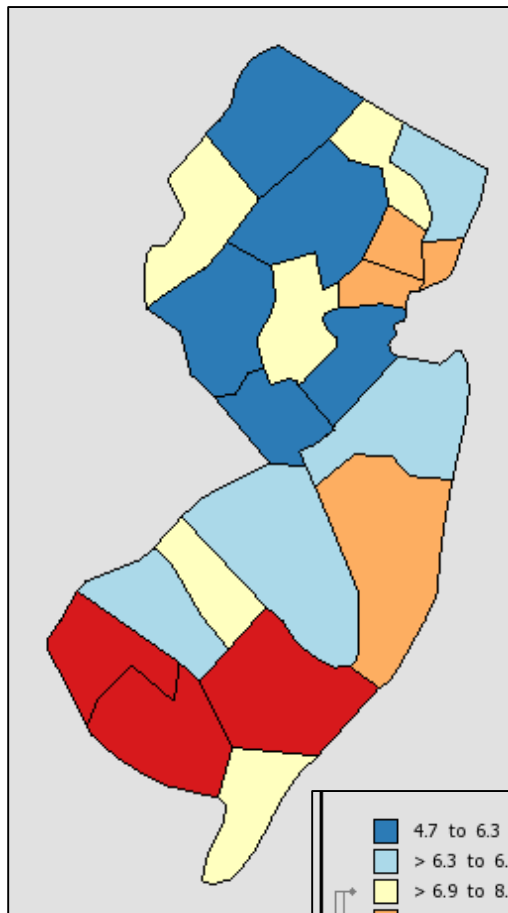
NJ Age-Adjusted Incidence Rates 2010-2014 by Cancer Type and Race/Ethnicity: **Male** HPV-related Cancers



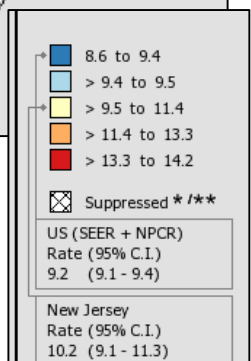
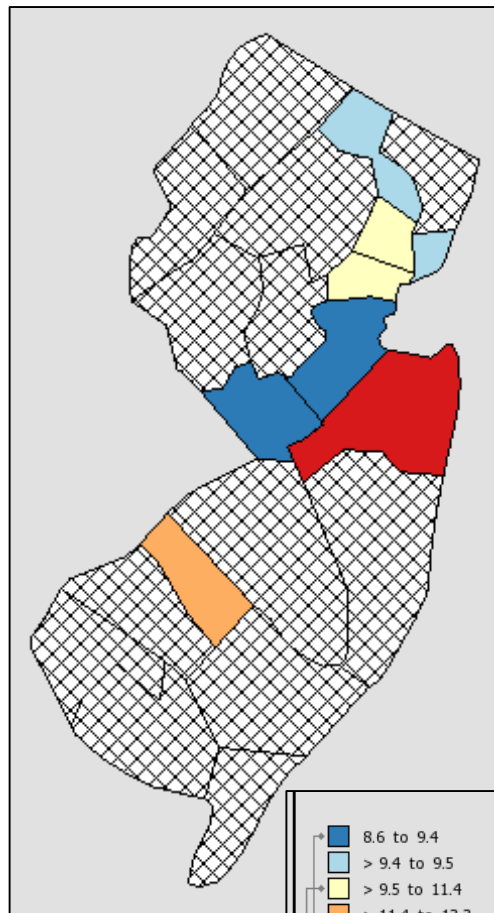
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NJ Invasive Cervical Cancer Rates by County 2010-2014

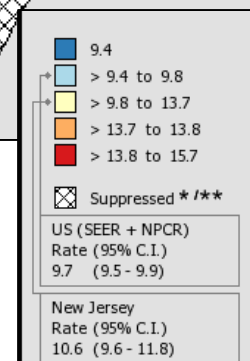
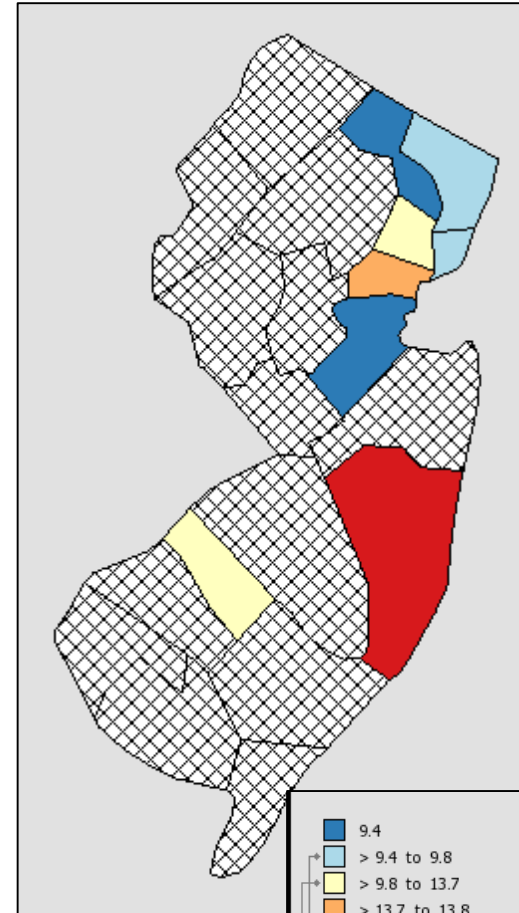
1. All Race/Ethnicities



2. Blacks

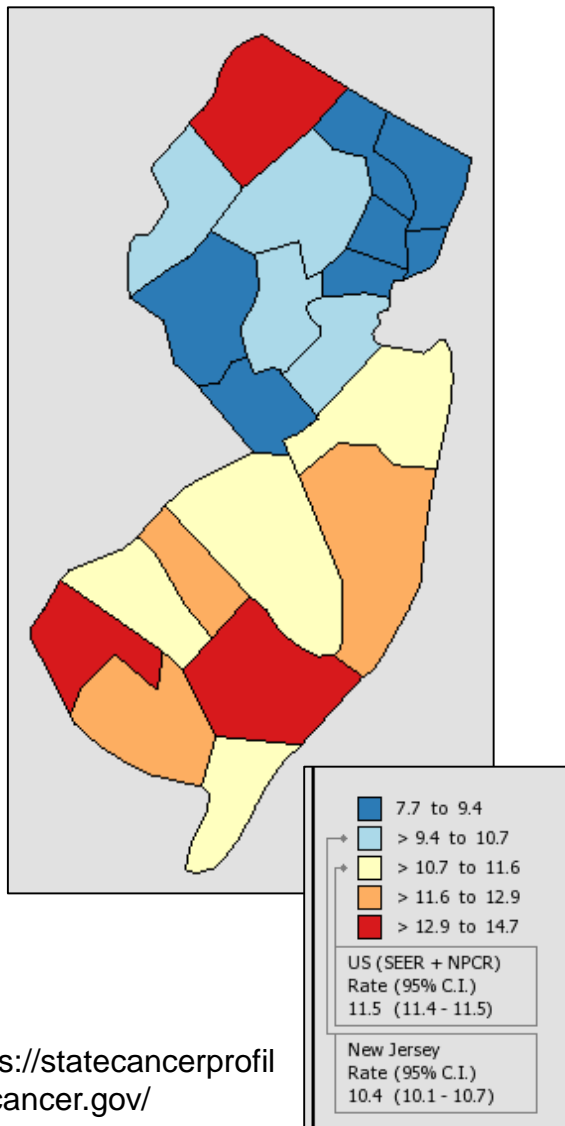


3. Hispanics (any race)

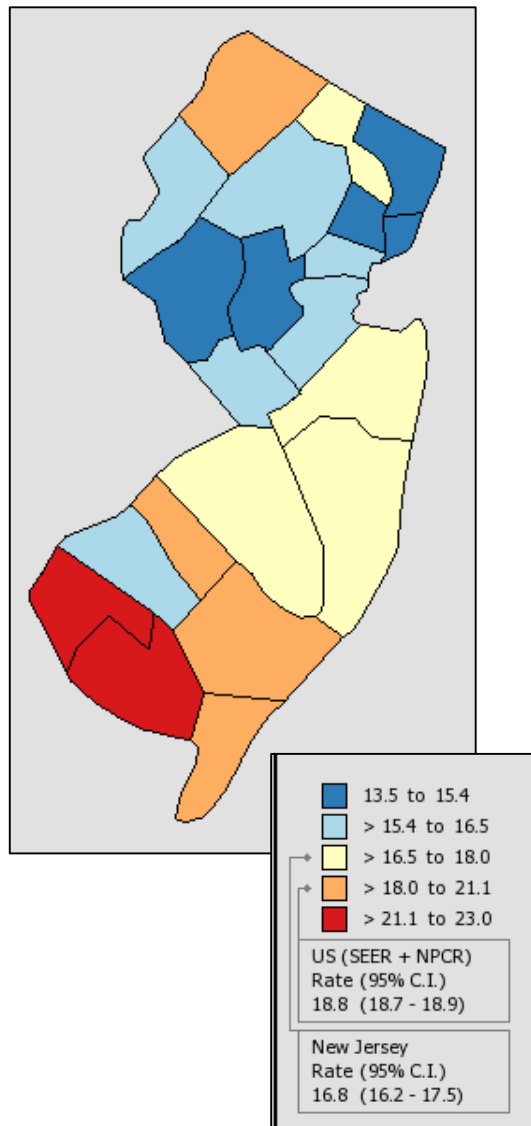


NJ Oral Cavity & Pharynx Rates by County 2010-2014

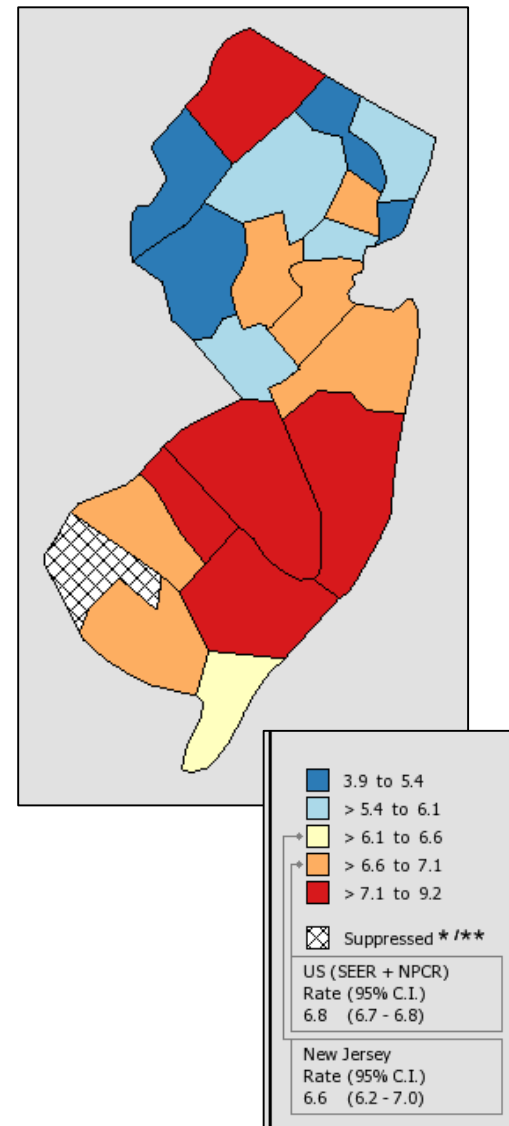
1. All Race/Ethnicities



2. NH White Males



3. NH White Females



New Jersey Average Annual Age-Adjusted Cancer Incidence Rate: 10-year Trends* in HPV-Associated Cancers FEMALES by Race/Ethnicity, 2005-2014

Cancer Type	NHW APC	NHB APC	API APC	HISPANIC APC
Invasive Cervical	-2.6*	-3.3*	-8.0*	-3.4*
Vaginal	2.7	-8.1	-8.2	-4.1
Vulvar	1.0	-0.4	^	4.1
Rectum	-1.5	-2.9	-3.3	-1.4
Anal	3.5	1.3	^	6.4
Oral Cavity & Pharynx	0.9	-0.7	-2.3	-2.2
Oropharynx	3.7	^	^	^
APC = Annual Percent Change * p < 0.05 ^ Statistic could not be calculated/Too few cases				

* Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2016 Sub (2000-2014) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2015 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, released April 2017, 9 based on the November 2016 submission

New Jersey Average Annual Age-Adjusted Cancer Incidence Rate: 10-year Trends* in HPV-Associated Cancers MALES by Race/Ethnicity, 2005-2014

Cancer Type	NHW APC	NHB APC	API APC	HISPANIC APC
Penis	3.6	^	^	0.3
Rectum	-1.6*	-2.6*	-2.3	-3.8*
Anal	-0.8	3.8	^	-0.7
Oral Cavity & Pharynx	1.3*	-0.5	0.2	-2.0
Oropharynx	0.2	10.0	^	-8.7
APC = Annual Percent Change				
* p < 0.05 ^ Statistic could not be calculated/Too few cases				

* Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2016 Sub (2000-2014) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2015 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, released April 2017, based on the November 2016 submission

Thank you!

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