

Cancers with Increasing Incidence Trends in the US: 1999-2008

Introduction

Over the past two decades, cancer incidence rates have increased in the United States. Between 1999 and 2008, the overall cancer incidence rate increased by 1.1% per year. This increase was driven by increases in incidence rates for cancers of the lung, prostate, breast, and colon. In addition, there were increases in incidence rates for cancers of the liver, esophagus, stomach, and pancreas. These increases in incidence rates are associated with increases in mortality rates for these cancers. For example, the incidence rate for lung cancer increased by 1.7% per year between 1999 and 2008, while the mortality rate increased by 2.1% per year during the same period.¹ The increase in incidence rates for cancers of the lung, prostate, breast, and colon are associated with increases in mortality rates for these cancers. For example, the incidence rate for lung cancer increased by 1.7% per year between 1999 and 2008, while the mortality rate increased by 2.1% per year during the same period.¹

Decreases in cancer incidence rates were observed for cancers of the oral cavity, pharynx, larynx, and esophagus. These decreases in incidence rates are associated with decreases in mortality rates for these cancers. For example, the incidence rate for oral cavity cancer decreased by 1.1% per year between 1999 and 2008, while the mortality rate decreased by 1.9% per year during the same period.¹

Data and Methods

Cancer incidence rates are based on surveillance data from the North American Association of Central Cancer Registries (NAACCR),⁶ a compilation of population-based incidence data from the National Cancer Institute's Surveillance, Epidemiology and End Result program and the Centers for Disease Control and Prevention's National Program of Cancer

Registries.⁷ The surveillance data are used to calculate cancer incidence rates for specific cancer sites and for all cancer sites combined. The surveillance data are used to calculate cancer incidence rates for specific cancer sites and for all cancer sites combined. The surveillance data are used to calculate cancer incidence rates for specific cancer sites and for all cancer sites combined. The surveillance data are used to calculate cancer incidence rates for specific cancer sites and for all cancer sites combined. The surveillance data are used to calculate cancer incidence rates for specific cancer sites and for all cancer sites combined. The surveillance data are used to calculate cancer incidence rates for specific cancer sites and for all cancer sites combined. The surveillance data are used to calculate cancer incidence rates for specific cancer sites and for all cancer sites combined. The surveillance data are used to calculate cancer incidence rates for specific cancer sites and for all cancer sites combined. The surveillance data are used to calculate cancer incidence rates for specific cancer sites and for all cancer sites combined.

HPV-related Oropharynx

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Figure 1. Incidence Rates* by Sex and Age for Cancers with Increasing Trends, 1999-2008.



HPV = human papillomavirus

*Age adjusted to the 2000 US standard population. Note the scale of the Y axis differs between cancer sites and genders.

Source: North American Association of Central Cancer Registries. Data are collected by cancer registries participating in NCI's SEER program and CDC's National Program of Cancer Registries.

American Cancer Society, Surveillance Research, 2012

Table 2. Incidence Rates* for Cancers with Increasing Trends by State and Sex, Ages 15 Years and Older, 2004-2008

	HPV-related oropharynx		Esophageal adenocarcinoma		Pancreas		Liver & intrahepatic bile duct		Thyroid		Kidney & renal pelvis		Melanoma of the skin	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Alabama†	8.6	2.2	6.5	0.6	17.6	12.4	10.2	3.6	5.3	14.2	25.9	13.3	31.5	18.0
Alaska	7.6	1.2	7.3	1.7	17.2	14.3	14.0	6.0	7.2	22.0	26.4	15.6	14.4	12.9
Arizona	6.2	1.7	5.9	0.7	14.5	11.2	11.5	3.9	7.6	23.6	23.3	13.2	24.7	14.5
Arkansas	8.6	2.1	5.6	0.7	16.4	11.8	9.9	3.1	5.1	12.8	27.2	14.3	22.7	13.8
California	7.0	1.5	5.4	0.7	16.3	13.3	16.2	5.7	6.1	18.2	23.2	11.2	34.3	20.0
Colorado	6.5	1.3	7.4	0.9	15.0	12.8	10.5	3.8	7.4	21.4	22.5	11.5	32.3	23.5
Connecticut	7.8	1.5	7.9	1.1	20.6	14.9	13.2	3.6	9.8	29.2	26.4	13.7	37.9	25.8
Delaware	9.6	1.9	7.6	1.2	18.1	13.8	12.0	3.0	6.9	20.7	25.8	14.8	42.0	22.8
District of Columbia	8.9	3.3	4.3	0.6	19.7	12.9	17.3	4.7	7.4	15.9	21.9	10.5	15.7	7.2
Florida	9.7	2.2	6.4	0.8	16.7	12.5	12.3	3.8	6.4	18.9	24.0	12.3	30.3	17.9
Georgia	8.5	1.8	5.5	0.6	17.2	12.7	11.4	3.5	5.7	17.1	24.7	12.5	35.5	20.5
Hawaii	7.3	1.3	3.4	0.3	18.0	14.3	19.1	7.2	7.9	24.7	21.8	10.6	34.5	19.1
Idaho	7.6	1.5	8.1	1.0	16.4	13.5	8.1	2.9	7.9	28.9	22.9	12.8	38.1	23.6
Illinois	8.0	1.9	8.1	1.1	18.9	14.2	11.6	4.1	7.1	21.0	28.8	15.1	25.0	16.6
Indiana	8.1	1.8	9.3	1.1	17.0	12.7	9.5	3.4	6.0	18.1	28.3	15.9	26.6	18.1
Iowa	7.1	1.5	9.8	1.2	17.0	12.4	8.6	3.2	7.5	19.8	29.0	14.6	29.7	22.1
Kansas	6.9	1.2	7.0	0.8	15.9	12.2	8.2	2.9	8.2	24.5	25.4	13.7	31.7	22.7
Kentucky	8.8	2.1	8.4	1.0	16.6	13.1	9.8	3.7	7.1	2	3.73.7	15(.)-11(4)JJ/Span<</ActualText<FEFF0000		

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17. Cade MB, Cade H, Duthie G, O'Gorman A, et al. Body mass index and risk of breast cancer: a meta-analysis. *Br J Cancer* 1977-2005. *Br J Cancer* 2009;101(5): 855-9.
18. Liao J, Jia J, Bao Y, Niu O, Aung A, et al. Body mass index and risk of breast cancer: a meta-analysis. *Ann Intern Med* 1999;130(11): 883-90.
19. Liao J, Jia J, Bao Y, Li L, Jia A, Niu O, et al. Body mass index and risk of breast cancer: a meta-analysis. *Ann Engl J Med* 1999;340(11): 825-31.
20. Korn JL, Schildknecht JL, Schildknecht JC, Korn LH, Evans B, et al. Body mass index and risk of breast cancer. *Cancer Epidemiol Biomarkers Prev* 1997;6(5): 369-77.
21. Boff M, Liao J, Fagerlin J, Eichorn J, Edwards I, et al. Body mass index and risk of breast cancer. *Cancer Epidemiology and Prevention*. New York: Oxford University Press, 2006:697-706.
22. Liao J, Jia J, Cade H, Bao Y, Niu O, et al. Body mass index and risk of breast cancer: a meta-analysis. *Lancet Oncol* 2006;7(4): 347-9.
23. Fagerlin KM, Cade MD, O'Gorman CL, Goss L, et al. Body mass index and risk of breast cancer: a meta-analysis. *JAMA* 1999-2008. *JAMA* 2010;303(3): 235-41.
24. Lee C, Fagerlin E, Micallef LC, Miller AH, Edwards I, et al. Body mass index and risk of breast cancer. *Obesity (Silver Spring)* 2007;15(1): 216-24.
25. Lee KK, Lee C, Fagerlin E, Micallef LC, Miller AH, et al. Body mass index and risk of breast cancer. *Am J Gastroenterol* 2008;103(3): 788-97.
26. Aune D, Krogh K, Midthjell D, Cade J, Vistad A, Tverdal A, et al. Body mass index and risk of breast cancer: a meta-analysis. *Cancer Epidemiology and Prevention* 2008;104(1-9): 7-15, 206-7, 217-9, 229-32, 233-6. DOI: 10.1007/s00529-008-0432-7.

56.J = A,D = 1, H = 1, MA = 1, AA = 1, FA = 1