

# Erie County Cancer Incidence and Mortality, 2009-2011

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Epidemiology

ERIE COUNTY DEPARTMENT OF HEALTH  
Public Health Preparedness Division



*Erie County Cancer Incidence and Mortality, 2009-2011*

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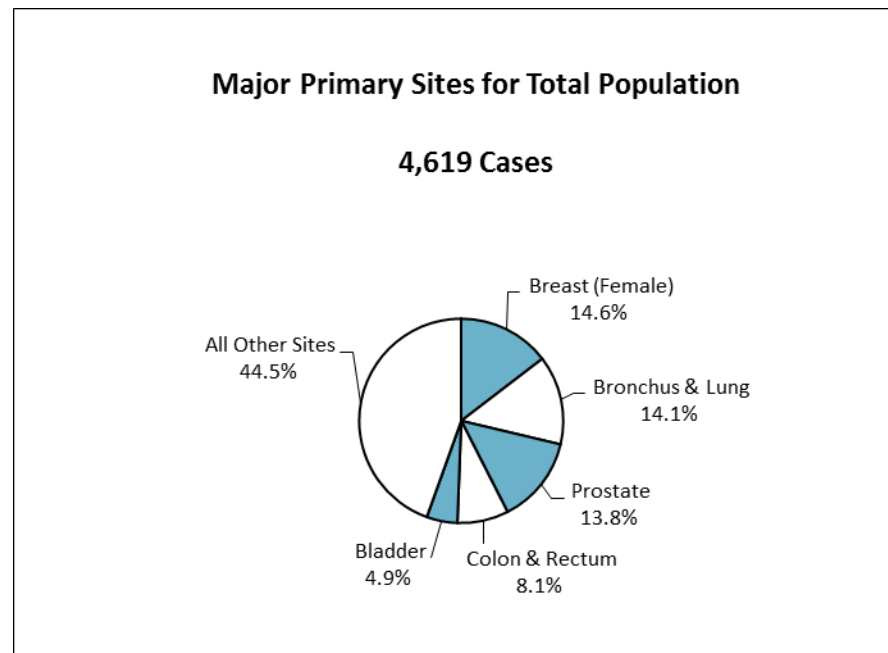
*“Our mission is to preserve, promote, and protect  
the health, safety and well-being of the people and the environment in Erie County.”*

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## Erie County Cancer Incidence, 2009-2011

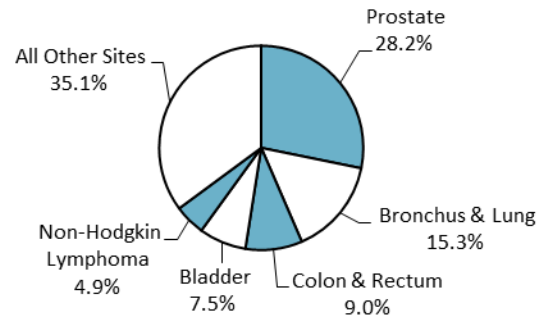
From 2009 to 2011, there were a total of 4,619 new cancer cases (primary invasive cancers and in situ urinary bladder cancers) diagnosed among Erie County residents, for a corresponding age-adjusted cancer incidence rate of 473.4 cases per 100,000 population. Overall, cancers were diagnosed in 2,263 (49.0%) males and 2,356 (51.0%) females. The age-adjusted incidence rates for males and females were 511.1 and 451.3 cases per 100,000, respectively. For Pennsylvania, the incidence rates were 497.0 for the total population, 558.4 for males, and 456.0 for females. With respect to race and ethnicity in Erie County, cancers were diagnosed in 4,370 (94.6%) Whites, 203 (4.4%) Blacks, 46 (1.0%) persons of Other/Unknown Race, and 48 (1.0%) Hispanics or Latinos (of any race). Erie County's five leading cancer incidence sites were: (1) female breast (14.6% of all diagnoses), (2) bronchus and lung (14.1%), (3) prostate (13.8%), (4) colon and rectum (8.1%), and (5) urinary bladder (4.9%). These sites accounted for 55.5% of all resident diagnoses.



Among Erie County males, the five leading cancer incidence sites/types were: (1) prostate (28.2% of all diagnoses), (2) bronchus and lung (15.3%), (3) colon and rectum (9.0%), (4) urinary bladder (7.5%), and (5) non-Hodgkin lymphoma (4.9%). These sites/types accounted for 64.9% of all male diagnoses. Among Erie County females, the five leading cancer incidence sites were: (1) breast (28.7% of all diagnoses), (2) bronchus and lung (12.9%), (3) colon and rectum (7.3%), (4) uterus (7.0%), and (5) thyroid (6.6%). These sites accounted for 62.5% of all female diagnoses.

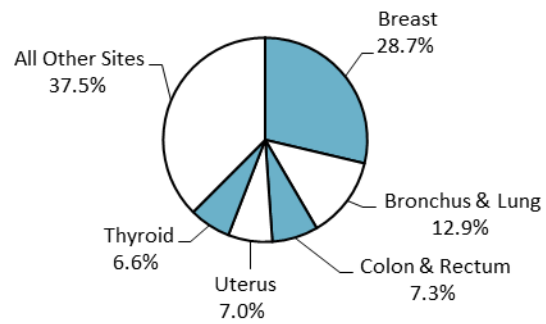
### Major Primary Sites for Male Population

2,263 Cases



### Major Primary Sites for Female Population

2,356 Cases



During 2009-2011, Erie County had a statistically significant lower age-adjusted incidence rate than Pennsylvania for six primary cancer sites/types: (1) all cancer sites combined, (2) colon and rectum, (3) melanoma, (4) kidney, (5) liver, and (6) multiple myeloma. With respect to males, Erie County had a significantly lower incidence rate than Pennsylvania for four sites/types: (1) all cancer sites combined, (2) melanoma, (3) kidney, and (4) liver. With respect to females, Erie County had a significantly lower incidence rate than Pennsylvania for the colon and rectum.

## ERIE COUNTY CANCER INCIDENCE, 2009-2011

Total Population				Male				Female			
Cancer Site/Type	# of Cases	Erie Co. Rate	PA Rate	Cancer Site/Type	# of Cases	Erie Co. Rate	PA Rate	Cancer Site/Type	# of Cases	Erie Co. Rate	PA Rate
All Cancer Sites	4,619	473.4	497.0	All Cancer Sites	2,263	511.1	558.4	All Cancer Sites	2,356	451.3	456.0
Breast (Female)	675	130.9	127.9	Prostate	639	139.5	136.2	Breast	675	130.9	127.9
Bronchus & Lung	652	65.8	66.9	Bronchus & Lung	347	78.9	81.5	Bronchus & Lung	305	56.3	56.6
Prostate	639	139.5	136.2	Colon & Rectum	203	45.9	52.4	Colon & Rectum	173	30.8	39.2
Colon & Rectum	376	37.5	45.1	Urinary Bladder	170	38.7	43.8	Corpus & Uterus, NOS	165	31.2	32.0
Urinary Bladder	225	22.7	24.9	Non-Hodgkin Lymphoma	111	25.6	26.2	Thyroid	156	35.3	30.2
Non-Hodgkin Lymphoma	217	22.5	21.4	Melanoma	87	20.2	25.4	Non-Hodgkin Lymphoma	106	19.3	17.5
Thyroid	200	23.1	20.4	Leukemia	80	19.1	17.7	Melanoma	76	15.6	17.4
Corpus & Uterus, NOS	165	31.2	32.0	Kidney & Renal Pelvis	76	16.2	22.2	Ovary	76	14.7	12.9
Melanoma	163	17.3	20.6	Oral Cavity & Pharynx	74	16.2	17.1	Leukemia	63	12.6	10.9
Leukemia	143	15.3	13.9	Pancreas	64	14.5	14.8	Pancreas	63	11.0	11.6
Kidney & Renal Pelvis	129	13.4	16.4	Thyroid	44	10.7	10.1	Urinary Bladder	55	10.3	11.2
Pancreas	127	12.7	13.1	Stomach	40	9.2	9.9	Kidney & Renal Pelvis	53	10.2	11.6
Oral Cavity & Pharynx	111	11.4	11.3	Esophagus	34	7.5	9.2	Oral Cavity & Pharynx	37	7.0	6.4
Ovary	76	14.7	12.9	Brain & Other Nervous System	29	6.9	8.2	Cervix Uteri	25	5.4	7.8
Stomach	65	6.7	6.8	Liver & Intrahepatic Bile Duct	28	5.5	11.2	Brain & Other Nervous System	25	5.3	5.9
Brain & Other Nervous System	54	6.0	7.0	Larynx	23	4.9	6.5	Stomach	25	4.7	4.4
Liver & Intrahepatic Bile Duct	48	4.6	7.1	Testis	21	5.5	6.7	Multiple Myeloma	24	3.9	5.1
Esophagus	46	4.4	5.2	Multiple Myeloma	17	**	7.6	Liver & Intrahepatic Bile Duct	20	3.8	3.6
Multiple Myeloma	41	3.9	6.2	Hodgkin Lymphoma	8	**	3.7	Esophagus	12	**	1.9
Larynx	28	2.7	3.8	All Other Sites	168	NA	NA	Hodgkin Lymphoma	10	**	3.0
Cervix Uteri	25	5.4	7.8					Larynx	5	**	1.6
Testis	21	5.5	6.7					All Other Sites	207	NA	NA
Hodgkin Lymphoma	18	**	3.3								
All Other Sites	375	NA	NA								

Notes: Newly diagnosed cancer cases (primary invasive cancers and in situ urinary bladder cancers) in 2009-2011 were classified using the International Classification of Diseases for Oncology, Third Edition (ICD-O-3). The primary site and type groupings followed the site definitions used by the Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute. Incidence rates are per 100,000 population and were age-adjusted to the 2000 United States standard million population. All rate comparisons and determinations of statistically significant differences followed 95% confidence interval comparison methods for dependent and independent populations. Data were provided by the PA Cancer Registry and the Bureau of Health Statistics & Research, PA Department of Health, who disclaim responsibility for any of the content that appears in this report.

\*\* = The number of cases is less than 20 and the corresponding rate is statistically unreliable

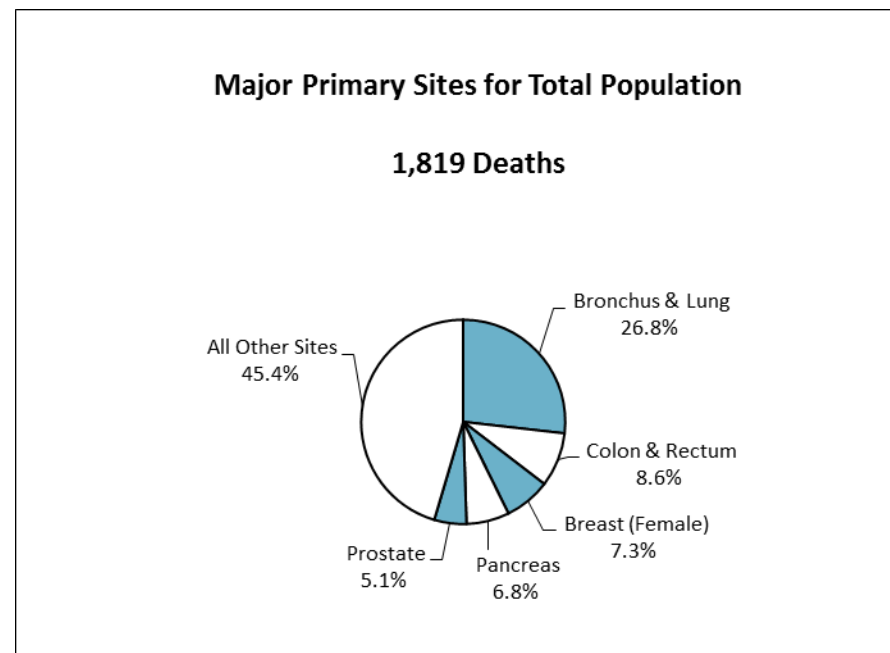
NA = Not Available

Blue = Significantly lower than the rate for PA

Red = Significantly higher than the rate for PA

## Erie County Cancer Mortality, 2009-2011

From 2009 to 2011, there were a total of 1,819 cancer deaths (primary malignant neoplasms) among Erie County residents, for a corresponding age-adjusted death rate of 181.8 deaths per 100,000 population. Overall, 922 (50.7%) deaths were to males and 897 (49.3%) deaths were to females. The age-adjusted death rates for males and females were 216.0 and 158.5 deaths per 100,000, respectively. For Pennsylvania, the death rates were 180.0 for the total population, 218.6 for males, and 153.7 for females. With respect to race and ethnicity in Erie County, 1,721 (94.6%) cancer deaths were to Whites, 86 (4.7%) deaths were to Blacks, 12 (0.7%) deaths were to persons of Other/Unknown Race, and 22 (1.2%) deaths were to Hispanics or Latinos (of any race). Erie County's five leading cancer mortality sites were: (1) bronchus and lung (26.8% of all deaths), (2) colon and rectum (8.6%), (3) female breast (7.3%), (4) pancreas (6.8%), and (5) prostate (5.1%). These sites accounted for over half (54.6%) of all cancer deaths.

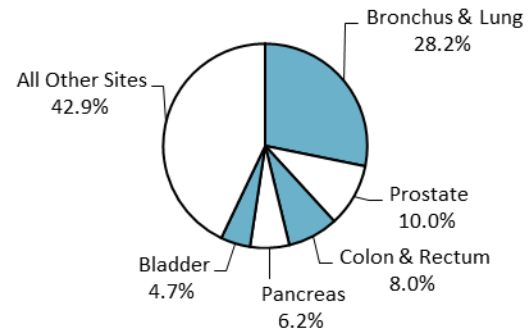


Among Erie County males, the five leading cancer mortality sites were: (1) bronchus and lung (28.2% of all deaths), (2) prostate (10.0%), (3) colon and rectum (8.0%), (4) pancreas (6.2%), and (5) urinary bladder (4.7%). These sites accounted for 57.1% of all male cancer deaths. Among Erie County females, the five leading cancer mortality sites were: (1) bronchus and lung (25.3% of all deaths), (2) breast (14.7%), (3) colon and rectum (9.1%), (4) pancreas (6.4%), and (5) ovary (5.6%). These sites accounted for 61.1% of all female cancer deaths.



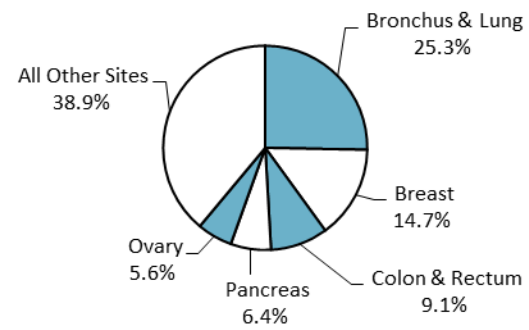
### Major Primary Sites for Male Population

922 Deaths



### Major Primary Sites for Female Population

897 Deaths



During 2009-2011, Erie County's total, male, and female populations did not have any statistically significant differences (lower or higher) in age-adjusted mortality rates by cancer site/type compared to Pennsylvania's total, male, and female populations, respectively.

## ERIE COUNTY CANCER MORTALITY, 2009-2011

Total Population				Male				Female			
Cancer Site/Type	# of Cases	Erie Co. Rate	PA Rate	Cancer Site/Type	# of Cases	Erie Co. Rate	PA Rate	Cancer Site/Type	# of Cases	Erie Co. Rate	PA Rate
All Cancer Sites	1,819	181.6	180.0	All Cancer Sites	922	216.0	218.6	All Cancer Sites	897	158.5	153.7
Bronchus & Lung	487	48.7	48.6	Bronchus & Lung	260	60.5	62.3	Bronchus & Lung	227	40.1	38.7
Colon & Rectum	156	15.4	16.7	Prostate	92	22.7	20.9	Breast	132	23.4	23.4
Breast (Female)	132	23.4	23.4	Colon & Rectum	74	17.3	20.2	Colon & Rectum	82	14.1	14.0
Pancreas	124	12.4	11.6	Pancreas	57	15.4	13.3	Pancreas	57	10.0	10.2
Prostate	92	22.7	20.9	Urinary Bladder	43	10.3	8.8	Ovary	50	9.0	8.2
Leukemia	75	7.6	7.4	Leukemia	42	9.9	9.8	Leukemia	33	5.9	5.6
Non-Hodgkin Lymphoma	66	6.6	6.7	Esophagus	41	9.5	8.8	Non-Hodgkin Lymphoma	29	4.2	5.2
Urinary Bladder	57	5.5	4.9	Non-Hodgkin Lymphoma	37	9.1	8.8	Corpus & Uterus, NOS	26	4.9	5.2
Esophagus	54	5.4	4.9	Liver & Intrahepatic Bile Duct	30	6.7	8.2	Kidney & Renal Pelvis	24	4.2	2.7
Ovary	50	9.0	8.2	Melanoma	22	5.2	4.5	Multiple Myeloma	18	**	2.8
Liver & Intrahepatic Bile Duct	46	4.6	5.5	Brain & Other Nervous System	22	5.2	5.2	Liver & Intrahepatic Bile Duct	16	**	3.2
Kidney & Renal Pelvis	43	4.3	4.0	Stomach	21	4.7	4.4	Melanoma	14	**	1.9
Melanoma	36	3.8	3.0	Kidney & Renal Pelvis	19	**	5.7	Urinary Bladder	14	**	2.3
Brain & Other Nervous System	36	3.7	4.2	Oral Cavity & Pharynx	17	**	3.4	Brain & Other Nervous System	14	**	3.5
Stomach	34	3.3	3.1	Multiple Myeloma	8	**	4.1	Stomach	13	**	2.1
Corpus & Uterus, NOS	26	4.9	5.2	Larynx	8	**	2.0	Esophagus	13	**	1.8
Multiple Myeloma	26	2.6	3.3	Thyroid	4	**	0.5	Cervix Uteri	11	**	2.2
Oral Cavity & Pharynx	22	2.3	2.2	Hodgkin Lymphoma	3	**	0.4	Oral Cavity & Pharynx	5	**	1.2
Larynx	11	**	1.1	Testis	0	**	0.3	Larynx	3	**	0.5
Cervix Uteri	11	**	2.2	All Other Sites	122	NA	NA	Hodgkin Lymphoma	3	**	0.3
Hodgkin Lymphoma	6	**	0.4					Thyroid	2	**	0.5
Thyroid	6	**	0.5					All Other Sites	111	NA	NA
Testis	0	**	0.3								
All Other Sites	223	NA	NA								

Notes: Underlying causes of death in 2009-2011 were classified according to the International Classification of Diseases, Tenth Edition (ICD-10). The primary site and type groupings followed the site definitions used by the Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute. Death rates are per 100,000 population and were age-adjusted to the 2000 United States standard million population. All rate comparisons and determinations of statistically significant differences followed 95% confidence interval comparison methods for dependent and independent populations. Data were provided by the PA Cancer Registry and the Bureau of Health Statistics & Research, PA Department of Health, who disclaim responsibility for any of the content that appears in this report.

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