

Erie County Cancer Incidence and Mortality, 2011-2013

Epidemiology



ERIE COUNTY DEPARTMENT OF HEALTH

Erie County Cancer Incidence and Mortality, 2011-2013

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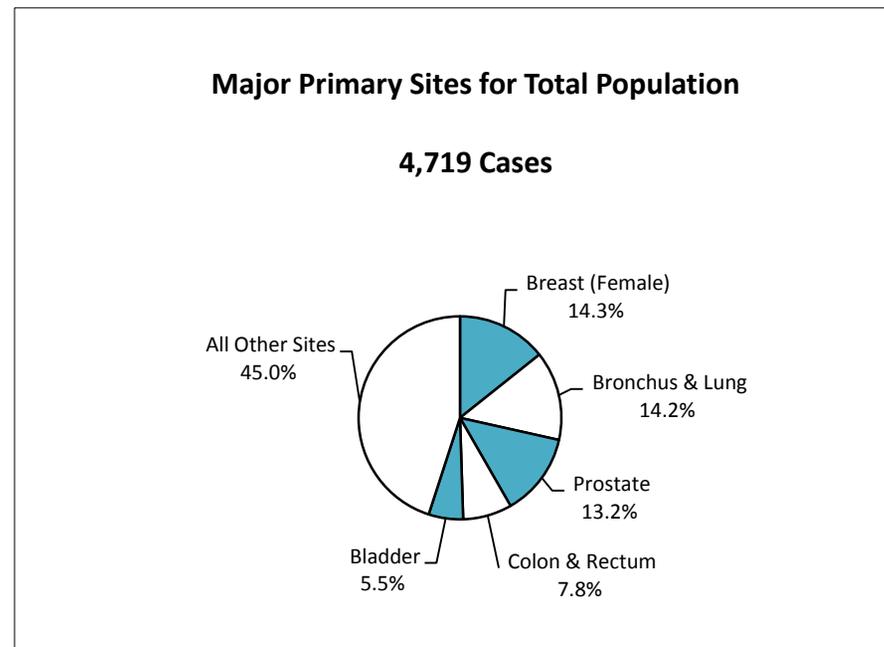
*“Our mission is to preserve, promote, and protect
the health, safety and well-being of the people and the environment in Erie County.”*

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Erie County Cancer Incidence, 2011-2013

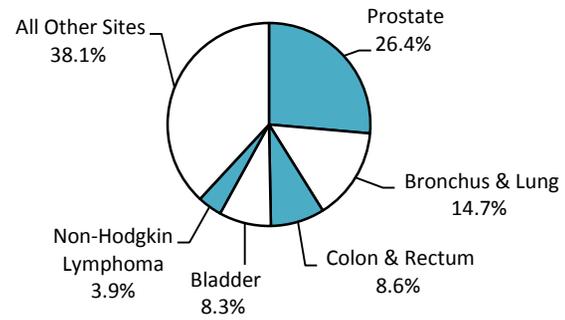
From 2011 to 2013, there were a total of 4,719 new cancer cases (primary invasive cancers and in situ urinary bladder cancers) diagnosed among Erie County residents, for a corresponding age-adjusted cancer incidence rate of 468.9 cases per 100,000 population. Overall, cancers were diagnosed in 2,354 (49.9%) males and 2,365 (51.1%) females. The age-adjusted incidence rates for males and females were 507.0 and 531.5 cases per 100,000, respectively. For Pennsylvania, the incidence rates were 485.6 for the total population, 531.5 for males, and 456.5 for females. With respect to race and ethnicity in Erie County, cancers were diagnosed in 4,392 (93.1%) Whites, 221 (4.7%) Blacks, 106 (2.2%) persons of Other/Unknown Race, and 37 (1.0%) Hispanics or Latinos (of any race). Erie County's five leading cancer incidence sites were: (1) female breast (14.3% of all diagnoses), (2) bronchus and lung (14.2%), (3) prostate (13.2%), (4) colon and rectum (7.8%), and (5) urinary bladder (5.5%). These sites accounted for 55.0% of all resident diagnoses.



Among Erie County males, the five leading cancer incidence sites/types were: (1) prostate (26.4% of all diagnoses), (2) bronchus and lung (14.7%), (3) colon and rectum (8.6%), (4) urinary bladder (8.3%), and (5) non-Hodgkin lymphoma (3.9%). These sites/types accounted for 61.9% of all male diagnoses. Among Erie County females, the five leading cancer incidence sites were: (1) breast (28.6% of all diagnoses), (2) bronchus and lung (13.7%), (3) colon and rectum (7.1%), (4) thyroid (6.4%), and (5) uterus (6.4%). These sites accounted for 62.2% of all female diagnoses.

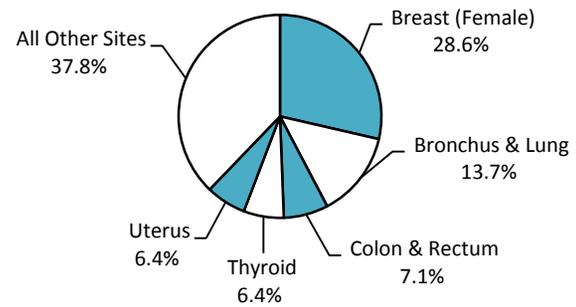
Major Primary Sites for Male Population

2,354 Cases



Major Primary Sites for Female Population

2,365 Cases



During 2011-2013, Erie County had a statistically significant lower age-adjusted incidence rate than Pennsylvania for five primary cancer sites/types: (1) all cancer sites combined, (2) colon and rectum, (3) melanoma, (4) liver and intrahepatic bile duct, and (5) cervix uteri. Erie County had a significantly higher incidence rate than Pennsylvania for only one site – the prostate.

With respect to males, Erie County had a significantly lower incidence rate than Pennsylvania for four sites/types: (1) all cancer sites combined, (2) non-hodgkin lymphoma, (3) melanoma, and (4) liver and intrahepatic bile duct. Erie County males had a significantly higher incidence rate than Pennsylvania for prostate cancer.

With respect to females, Erie County had a significantly lower incidence rate than Pennsylvania two primary cancer sites/types: (1) colon and rectum, and (2) cervix uteri.

ERIE COUNTY CANCER INCIDENCE, 2011-2013

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	4,719	468.9	485.6	All Cancer Sites	2,354	507.0	531.5	All Cancer Sites	2,365	445.5	456.5
Breast (Female)	677	128.8	129.0	Prostate	622	125.6	112.9	Breast	677	128.8	129.0
Bronchus & Lung	669	64.4	64.7	Bronchus & Lung	346	74.0	77.6	Bronchus & Lung	323	57.9	55.5
Prostate	622	125.6	112.9	Colon & Rectum	203	45.6	49.7	Colon & Rectum	167	29.7	37.5
Colon & Rectum	370	36.8	43.0	Urinary Bladder	196	43.8	43.7	Thyroid	152	34.3	31.0
Urinary Bladder	258	25.5	25.0	Leukemia	92	20.4	17.8	Corpus & Uterus, NOS	151	27.6	32.1
Non-Hodgkin Lymphoma	200	20.0	21.1	Kidney & Renal Pelvis	92	19.6	22.5	Non-Hodgkin Lymphoma	109	20.4	17.5
Thyroid	184	21.1	20.7	Non-Hodgkin Lymphoma	91	19.4	25.7	Ovary	74	14.2	12.0
Kidney & Renal Pelvis	162	15.9	16.7	Oral Cavity & Pharynx	86	17.9	17.6	Melanoma	70	14.6	18.3
Corpus & Uterus, NOS	151	27.6	32.1	Melanoma	73	16.3	27.8	Kidney & Renal Pelvis	70	12.8	11.7
Leukemia	146	14.8	14.1	Pancreas	65	14.0	15.4	Pancreas	69	12.3	11.6
Melanoma	143	15.1	22.2	Esophagus	41	8.6	9.1	Urinary Bladder	62	11.1	11.0
Pancreas	134	13.1	13.3	Liver & Intrahepatic Bile Duct	40	8.1	11.9	Leukemia	54	10.3	11.3
Oral Cavity & Pharynx	124	12.1	11.8	Brain & Other Nervous System	39	9.4	8.3	Oral Cavity & Pharynx	38	6.9	6.7
Ovary	74	14.2	12.0	Larynx	34	7.5	6.4	Brain & Other Nervous System	28	5.9	6.1
Brain & Other Nervous System	67	7.5	7.1	Thyroid	32	7.4	10.1	Multiple Myeloma	27	5.2	5.0
Liver & Intrahepatic Bile Duct	58	5.4	7.6	Stomach	32	6.9	9.2	Cervix Uteri	23	4.9	7.6
Stomach	53	5.2	6.3	Multiple Myeloma	26	5.8	7.9	Stomach	21	3.9	4.0
Multiple Myeloma	53	5.4	6.3	Testis	25	6.7	6.5	Liver & Intrahepatic Bile Duct	18	**	3.8
Esophagus	50	4.8	5.1	Hodgkin Lymphoma	9	**	3.7	Esophagus	9	**	1.9
Larynx	41	3.9	3.7	All Other Sites	210	NA	NA	Hodgkin Lymphoma	7	**	2.8
Testis	25	6.7	6.5					Larynx	7	**	1.5
Cervix Uteri	23	4.9	7.6					All Other Sites	209	NA	NA
Hodgkin Lymphoma	16	**	3.2								
All Other Sites	419	NA	NA								

Notes: Newly diagnosed cancer cases (primary invasive cancers and in situ urinary bladder cancers) in 2011-2013 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

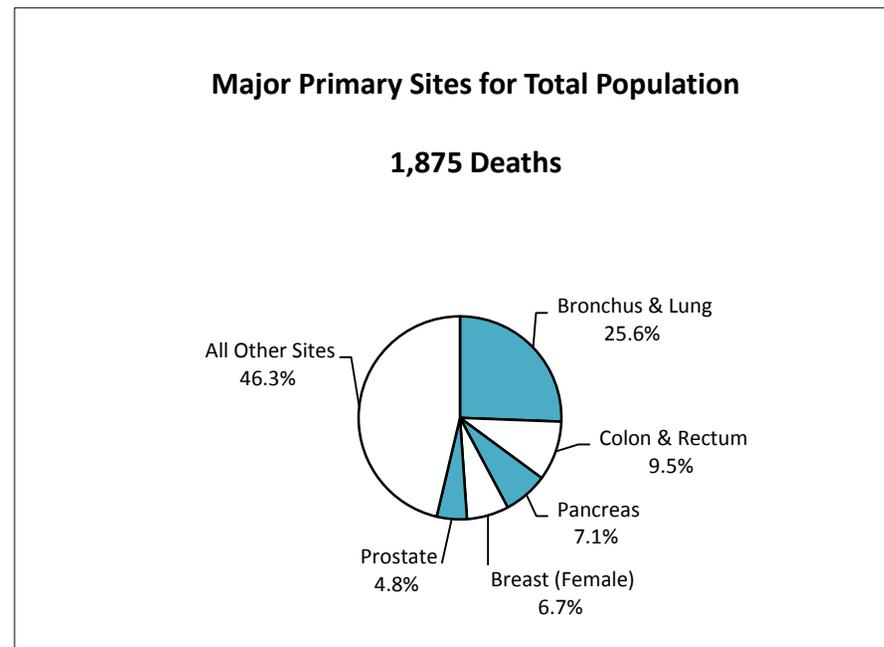
NA = Not Available

Blue = Significantly lower than the rate for PA

Red = Significantly higher than the rate for PA

Erie County Cancer Mortality, 2011-2013

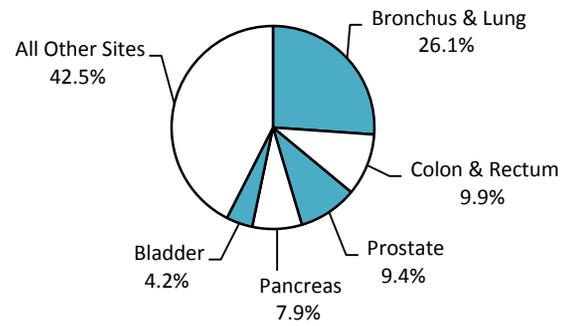
From 2011 to 2013, there were a total of 1,875 cancer deaths (primary malignant neoplasms) among Erie County residents, for a corresponding age-adjusted death rate of 181.2 deaths per 100,000 population. Overall, 958 (51.1%) deaths were to males and 917 (48.9%) deaths were to females. The age-adjusted death rates for males and females were 215.7 and 157.9 deaths per 100,000, respectively. For Pennsylvania, the death rates were 173.4 for the total population, 208.7 for males, and 149.2 for females. With respect to race and ethnicity in Erie County, 1,751 (93.4%) cancer deaths were to Whites, 96 (5.1%) deaths were to Blacks, 28 (1.5%) deaths were to persons of Other/Unknown Race, and 17 (0.9%) deaths were to Hispanics or Latinos (of any race). Erie County's five leading cancer mortality sites were: (1) bronchus and lung (25.6% of all deaths), (2) colon and rectum (9.5%), (3) pancreas (7.1%), (4) female breast (6.7%), and (5) prostate (4.8%). These sites accounted for over half (53.8%) of all cancer deaths.



Among Erie County males, the five leading cancer mortality sites were: (1) bronchus and lung (26.1% of all deaths), (2) colon and rectum (9.9%), (3) prostate (9.4%), (4) pancreas (7.9%), and (5) urinary bladder (4.2%). These sites accounted for 57.5% of all male cancer deaths. Among Erie County females, the five leading cancer mortality sites were: (1) bronchus and lung (25.1% of all deaths), (2) breast (13.7%), (3) colon and rectum (9.2%), (4) ovary (6.3%), and (5) pancreas (6.2%). These sites accounted for 60.5% of all female cancer deaths.

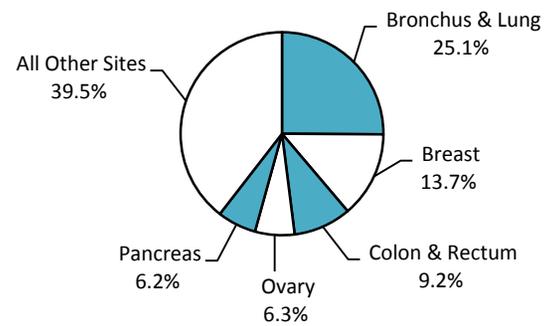
Major Primary Sites for Male Population

958 Deaths



Major Primary Sites for Female Population

917 Deaths



During 2011-2013, Erie County had a statistically significant lower age-adjusted mortality rate than Pennsylvania for the brain and other nervous system cancer site. Erie County's 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 male and female populations, respectively.

ERIE COUNTY CANCER MORTALITY, 2011-2013

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	1,875	181.2	173.4	All Cancer Sites	950	215.7	208.7	All Cancer Sites	917	157.9	149.2
Bronchus & Lung	480	46.7	46.2	Bronchus & Lung	250	55.8	58.6	Bronchus & Lung	230	40.2	37.1
Colon & Rectum	179	17.2	15.8	Colon & Rectum	95	21.5	18.7	Breast	126	21.7	22.3
Pancreas	133	12.9	11.4	Prostate	90	21.5	19.8	Colon & Rectum	84	14.0	13.5
Breast (Female)	126	21.7	22.3	Pancreas	76	16.8	13.2	Ovary	58	10.3	7.8
Prostate	90	21.5	19.8	Urinary Bladder	40	9.1	8.4	Pancreas	57	9.8	10.0
Leukemia	68	7.0	7.2	Leukemia	39	9.1	9.5	Non-Hodgkin Lymphoma	34	5.5	4.8
Non-Hodgkin Lymphoma	66	6.4	6.3	Liver & Intrahepatic Bile Duct	37	8.0	8.7	Leukemia	29	5.7	5.5
Liver & Intrahepatic Bile Duct	61	5.8	5.9	Esophagus	36	8.4	8.7	Corpus & Uterus, NOS	29	4.7	5.2
Ovary	58	10.3	7.8	Kidney & Renal Pelvis	34	7.5	5.4	Liver & Intrahepatic Bile Duct	24	4.0	3.5
Kidney & Renal Pelvis	52	5.0	3.9	Non-Hodgkin Lymphoma	32	7.4	8.3	Multiple Myeloma	23	4.0	2.7
Urinary Bladder	50	4.7	4.8	Multiple Myeloma	22	5.0	4.1	Kidney & Renal Pelvis	18	**	2.7
Multiple Myeloma	45	4.4	3.3	Melanoma	20	4.9	4.1	Brain & Other Nervous System	13	**	3.6
Esophagus	42	4.2	4.7	Stomach	14	**	3.9	Stomach	11	**	1.9
Melanoma	29	3.0	2.8	Brain & Other Nervous System	13	**	5.0	Urinary Bladder	10	**	2.4
Corpus & Uterus, NOS	29	4.7	5.2	Oral Cavity & Pharynx	11	**	3.2	Melanoma	9	**	1.8
Brain & Other Nervous System	26	2.6	4.2	Larynx	7	**	2.0	Oral Cavity & Pharynx	9	**	1.2
Stomach	25	2.5	2.8	Thyroid	2	**	0.5	Cervix Uteri	7	**	2.1
Oral Cavity & Pharynx	20	1.8	2.1	Hodgkin Lymphoma	2	**	0.4	Esophagus	6	**	1.6
Larynx	8	**	1.1	Testis	0	**	0.3	Hodgkin Lymphoma	3	**	0.3
Cervix Uteri	7	**	2.1	All Other Sites	130	NA	NA	Larynx	1	**	0.5
Hodgkin Lymphoma	5	**	0.4					Thyroid	0	**	0.5
Thyroid	2	**	0.5					All Other Sites	136	NA	NA
Testis	0	**	0.2								
All Other Sites	218	NA	NA								

Notes: Underlying causes of death in 2011-2013 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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