

Applied Epidemiology, Inc. baseline study results and Wong et al., 1992 results: Observed (Obs) and expected (Exp) deaths, standardized mortality ratios (SMR's) and ninety-five percent confidence intervals (95% CI's) using U.S. white male mortality rates, plant state-specific white male mortality rates, for follow-up through December 31, 1982

Cause of death	Applied Epidemiology, Inc. baseline analysis							Wong et al., 1992			
	Obs	U.S. reference rates			State reference rates			U.S. reference rates			
		Exp	SMR	95% CI	Exp	SMR	95% CI	Obs	Exp	SMR	95% CI
All causes	1569	1734.92	90	86-95	1876.87	84	80-88	1536	1705.27	90	86-95
All malignant neoplasms	389	363.09	107	97-118	380.46	102	92-113	359	341.73	105	94-117
Cancer of:											
Buccal cavity & pharynx	13	11.81	110	59-188	11.61	112	60-192	12	11.55	104	54-181
Tongue	4	2.74	146	40-374	2.56	156	43-400	4	nr	--	
Other parts buccal cavity	3	3.15	95	20-278	2.98	101	21-294	3	nr	--	
Pharynx	5	5.66	88	29-206	5.79	86	28-202	4	nr	--	
Digestive organs & peritoneum	106	94.82	112	92-135	91.43	116	95-140	99	89.21	111	90-135
Esophagus	7	8.59	81	33-168	8.37	84	34-172	7	8.07	87	35-179
Stomach	11	16.10	68	34-122	14.78	74	37-133	10	16.01	63	30-115
Intestine, except rectum	21	31.44	67	41-102	29.57	71	44-109	20	28.79	70	42-107
Rectum	5	9.71	51	17-120	8.89	56	18-131	5	9.91	50	16-118
Liver & biliary tract	39	8.11	481	342-657	9.11	428	304-585	37	5.77	641	450-884
Pancreas	18	19.21	94	55-148	18.89	95	56-151	16	18.40	87	50-141

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Peritoneum & other digestive organs	5	1.65	302	98-706	1.82	274	89-640	4	nr	--	
Respiratory system	128	132.71	96	80-115	151.35	85	71-101	115	122.25	94	78-113
Larynx	3	5.44	55	11-161	5.94	50	10-148	3	5.24	57	12-168
Trachea, bronchus & lung	122	125.56	97	81-116	143.58	85	71-101	111	115.87	96	79-116
Other respiratory system	3	1.71	176	36-513	1.83	164	34-480	1	nr	--	
Prostate	15	16.55	91	51-149	15.59	96	54-159	15	15.20	99	55-163
Kidney	11	9.53	115	58-207	9.73	113	56-202	11	9.06	121	61-217
Bladder	6	8.58	70	26-152	8.34	72	26-157	5	8.46	59	19-138
Skin	7	8.28	85	34-174	8.34	83	33-171	6	7.36	82	30-178
Eye	2	0.32	628	76-2269	0.42	475	58-1717	0	0.31	0	
Brain & other nervous system	22	13.61	162	101-245	13.05	169	106-255	23	12.76	180	114-271
Thyroid	2	0.74	269	33-972	0.73	274	33-989	2	0.68	293	36-1059
Bone	2	1.66	120	15-434	2.19	91	11-330	2	1.81	111	13-399
Connective & soft tissue	7	1.84	381	153-785	1.91	367	147-755	6	nr	--	
Lymphatic & hematopoietic	37	36.91	100	71-138	37.29	99	70-137	37	36.28	102	72-141
Lymphosarcoma/reticulosarcoma	10	7.77	129	62-237	7.72	130	62-238	11	7.98	138	69-247
Hodgkin's disease	3	5.16	58	12-170	5.31	57	12-165	3	5.45	55	11-161
Leukemia & aleukemia	12	14.73	81	42-142	15.03	80	41-139	13	13.94	93	50-159

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Other lymphatic & hematopoietic	12	9.25	130	67-227	9.23	130	67-227	10	8.37	119	57-220
Unspecified	29	22.37	130	87-186	25.13	115	77-166	23	nr	--	
Benign & unspecified nature neoplasms	7	5.70	123	49-253	5.54	126	51-260	4	5.08	79	21-201
Unspecified nature of eye, brain & other nervous system	4	2.68	149	41-382	2.80	143	39-365	1	nr	--	
Other	3	2.07	145	30-424	2.01	149	31-436	3	nr	--	
Diabetes mellitus	23	23.89	96	61-144	25.38	91	57-136	22	23.52	94	59-142
Diseases of the blood & blood forming organs	2	4.17	48	6-173	4.37	46	6-165	2	3.76	53	6-192
Mental, psychoneurotic & personality disorders	7	12.74	55	22-113	13.15	53	21-110	4	11.80	34	9-87
Alcoholism	4	8.86	45	12-116	9.20	43	12-111	3	nr	--	
Other mental disorders	3	3.87	77	16-226	3.94	76	16-222	1	nr	--	

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Diseases of the nervous system & sense organs	14	17.29	81	44-136	17.40	80	44-135	15	nr	--	
Multiple sclerosis	3	2.31	130	27-380	1.87	161	33-470	3	nr	--	
Other diseases of nervous system & sense organs	11	14.98	73	37-131	15.53	71	35-127	12	nr	--	
Diseases of the heart	642	680.17	94	87-102	735.95	87	81-94	601	nr	--	
Rheumatic heart disease	12	18.71	64	33-112	16.46	73	38-127	14	19.33	72	40-122
Ischemic heart disease	535	583.71	92	84-100	630.80	85	78-92	488	597.73	82	75-89
Chronic disease of endocardium	5	3.55	141	46-329	3.17	158	51-368	3	nr	--	
Other myocardial degeneration	3	7.89	38	8-111	5.84	51	11-150	31	nr	--	
Hypertension with heart disease	23	15.20	151	96-227	14.50	159	101-238	23	nr	--	
Other heart diseases	64	51.12	125	96-160	65.17	98	76-125	42	nr	--	
Other diseases of the circulatory system	109	129.73	84	69-101	143.51	76	62-92	103	nr	--	
Hypertension without heart disease	3	4.53	66	14-193	5.06	59	12-173	8	nr	--	
Cerebrovascular disease	78	86.64	90	71-112	96.46	81	64-101	70	91.93	76	60-96
Diseases of arteries, veins & pulmonary circulation	28	38.55	73	48-105	41.99	67	44-96	25	nr	--	

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Diseases of the respiratory system	70	91.93	76	59-96	111.60	63	49-79	70	87.61	80	62-101
Pneumonia	16	31.54	51	29-82	34.41	47	27-76	15	31.94	47	26-78
Chronic & unspecified bronchitis	2	4.38	46	6-165	5.44	37	4-133	2	nr	--	
Emphysema*	17	20.12	84	49-135	23.45	72	42-116	17	nr	--	
Asthma	1	3.00	33	1-185	3.76	27	1-148	1	2.89	35	1-192
Pneumoconioses & other respiratory diseases (includes COPD)	33	30.30	109	75-153	41.21	80	55-112	35	nr	--	
<i>Emphysema & COPD*</i>								41	22.83	180	129-244
Diseases of the digestive system	63	97.55	65	50-83	93.36	67	52-86	60	95.58	63	48-81
Diseases of stomach & duodenum	9	12.11	74	34-141	12.02	75	34-142	8	11.15	72	31-414
Hernia & intestinal obstruction	2	3.81	53	6-190	3.83	52	6-189	2	nr	--	
Cirrhosis of the liver	38	56.70	67	47-92	50.91	75	53-102	35	56.06	62	43-87
Other digestive system diseases	14	24.93	56	31-94	26.60	53	29-88	14	nr	--	
Diseases of the genitourinary system	8	19.80	40	17-80	21.55	37	16-73	9	20.41	44	20-84
Chronic/unspecified nephritis	4	9.41	43	12-109	10.11	40	11-101	4	8.29	48	13-123
Other genitourinary diseases	3	3.77	79	16-232	4.33	69	14-203		nr	--	

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Diseases of musculoskeletal system & connective tissue	1	3.15	32	1-177	3.28	30	1-170			--	
Symptoms & ill-defined conditions	7	21.51	33	13-67	26.68	26	11-54	10	21.79	46	22-84
All external causes	183	226.58	81	69-93	256.67	71	61-82	168	225.97	74	64-87
Accidents	117	153.26	76	63-91	175.92	67	55-80	108	150.16	72	59-87
Violence	66	73.32	90	70-114	81.75	81	62-103	60	nr	--	
Suicide	49	53.89	91	67-120	55.51	88	65-117	46	52.78	87	64-116
Homicide	17	19.43	87	51-140	26.24	65	38-104	14	nr	--	
Other causes	15	25.00	60	34-99	25.49	59	33-97	?	nr	--	
Unknown	28							97			

nr=no rates available for category of death

* In the NIOSH categories of death (used in AEI baseline analysis), deaths from emphysema (ICD-7 527.1; ICD8 492; ICD9 492) are included in *Emphysema* and deaths from COPD (ICD-7 527.2; ICD-8 519.2; ICD-9 496) are included in *Pneumoconioses & other respiratory diseases*. In the Monson categories of death (used in Wong et al. analysis), *Emphysema & COPD* includes deaths from any of the following: Pulmonary collapse (ICD-7 527.0); Emphysema without mention of bronchitis (ICD-7 527.1); Other diseases of the lung (includes COPD) (ICD-7 527.2).