

INCIDENCE-BASED MORTALITY

Sample Analyses

**Incidence-Based Mortality for Malignant Prostate Cancer in White Males
SEER 9 by Stage (All, Local/Regional, Distant, Unstaged) and Year of Death
Excludes Death Certificate and Autopsy Only Cases**

Description

In this demonstration, we will use SEER*Stat to create two tables showing incidence-based mortality for malignant prostate cancer in white males in the SEER 9 registries. The SEER*Stat tables will be stratified by stage at diagnosis and year of death.

The two tables differ based on the deaths included in the analyses. In both tables, only one tumor record per person is included since we are analyzing mortality.

The first session includes all males who died from prostate cancer and had a malignant prostate cancer diagnosed from 1975 to 2001 (with reporting source other than death certificate or autopsy only). This cumulative table is displayed by year of death (1975-2001). Note that the trends in IBM produced in this first session are not interpretable, since each subsequent mortality year reported has one extra possible year of diagnoses included. The next session solves this problem by limiting the deaths to within 10 years of diagnosis.

The second session includes all males that died of prostate cancer and had a malignant prostate cancer diagnosis within 10 years (120 months) prior to death (with reporting source other than death certificate or autopsy only). The 10-year table is also displayed by year of death. By definition, this table shows deaths from 1985-2001 since a full 10 years of diagnosis information is not in the SEER database for earlier years (data for all 9 registries starts in 1975).

SEER*Stat Session and Results

This handout contains printouts of two SEER*Stat results matrix files and an Excel spreadsheet showing the results from both sessions on one page. The SEER*Stat printouts include documentation of the parameters used in the session that generated the statistics.

**Incidence Based Mortality for Prostate Cancer in White Males
SEER 9 by Stage (All, Local/Regional, Distant, Unstaged) and Year of Death
Excludes Death Certificate and Autopsy Only Cases**

	<u>Cumulative</u>				<u>Equal (10-years)</u>			
	All Stages	Localized/ Regional	Distant	Unstaged	All Stages	Localized/ Regional	Distant	Unstaged
1975	3.4964	0.8749	2.0248	0.5967				
1976	9.7663	3.1108	5.3700	1.2854				
1977	13.5772	5.4795	6.8400	1.2577				
1978	18.5451	8.4021	8.5286	1.6144				
1979	20.7144	9.3100	9.5694	1.8350				
1980	23.7931	11.8206	10.5985	1.3740				
1981	24.9652	12.2953	10.8620	1.8079				
1982	26.6609	14.1423	10.9288	1.5898				
1983	28.0961	14.5501	11.4079	2.1381				
1984	27.5944	14.4677	10.8194	2.3073				
1985	28.8251	15.5725	11.4250	1.8277	28.5286	15.3714	11.3626	1.7946
1986	30.5097	15.1609	12.3531	2.9957	29.3355	14.1881	12.2693	2.8780
1987	32.0506	16.2440	13.0134	2.7932	30.2941	14.8364	12.8475	2.6102
1988	32.8105	16.2519	12.9905	3.5681	30.6839	14.5812	12.7196	3.3830
1989	33.1394	17.1265	12.7248	3.2881	30.7560	15.1235	12.4912	3.1412
1990	33.5991	17.4674	12.9055	3.2263	30.4235	14.6908	12.6739	3.0587
1991	36.0482	17.9853	13.3218	4.7412	32.4785	14.9930	12.9566	4.5289
1992	36.1056	18.7449	12.0573	5.3033	31.7677	15.0265	11.7187	5.0225
1993	34.7740	17.6347	11.8483	5.2910	30.4887	14.1370	11.4843	4.8675
1994	34.7298	19.0314	10.4627	5.2357	29.9155	14.9582	10.1035	4.8539
1995	33.0469	18.7233	8.9468	5.3767	28.3314	14.7697	8.5450	5.0166
1996	32.7379	19.2267	8.5428	4.9685	27.4085	15.0189	8.0096	4.3800
1997	29.5443	17.4709	7.5595	4.5139	24.8064	13.6919	7.1666	3.9479
1998	28.5819	17.3070	7.0179	4.2571	23.5270	13.2738	6.6048	3.6484
1999	26.5390	16.2025	6.4904	3.8461	21.3861	12.1599	6.1292	3.0971
2000	25.1041	16.1087	5.9635	3.0320	19.7737	11.6949	5.5822	2.4967
2001	25.2590	16.9568	5.5694	2.7328	19.1260	12.1401	5.0506	1.9354

Cumulative: Includes the First Malignant Prostate Cancer Diagnosed From 1975-2001 for Each Person That Died from Prostate Cancer

Equal (10-years): Includes the First Malignant Prostate Cancer Diagnosed Within 10 Years of Death for Each Person That Died from Prostate Cancer

Rates are per 100,000 and age-adjusted to the 2000 U.S. (19 age groups) standard.

Incidence Based Mortality for Prostate Cancer in White Males
SEER 9 by Stage (All, Local/Regional, Distant, Unstaged) and Year of Death
Includes the First Malignant Prostate Cancer Diagnosed from 1975-2001 for Each Person that Died from Prostate Cancer
Excludes Death Certificate and Autopsy Only Cases

Session Type: Rate

Suggested Citation

Software: Surveillance Research Program, National Cancer Institute SEER*Stat software (www.seer.cancer.gov/seerstat) version 5.2.2.
Data: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence-Based Mortality - SEER 9 Regs Public-Use, Nov 2003 Sub (1973-2001), National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released May 2004, based on the November 2003 submission.

Data

Database: Incidence-Based Mortality - SEER 9 Regs Public-Use, Nov 2003 Sub (1973-2001)

Statistic

Statistic: Age-Adjusted Rates (Age at death recode with <1 yr olds) (2000 U.S. (19 age groups) standard)

Selection

Pop/Case: {Race, Sex, Year Death, Registry, County.Race recode A} = 'White'
AND {Race, Sex, Year Death, Registry, County.Sex} = 'Male'

Case Only: {Site and Morphology.Site recode} = 'Prostate'
AND {Site and Morphology.COD to site recode} = 'Prostate'
AND {Dates.Year of diagnosis} != '1973', '1974'
AND {Other.Type of Reporting Source} != 'Autopsy only', 'Death certificate only'

Option: Select only malignant behavior
Select only the first matching record for each person

Table

Row: Year of death recode (1975+) [Year of death recode]

Column: SEER hist stage A Prostate (A, L/R, D, U) [SEER historic stage A]

User Definitions

SEER hist stage A Prostate (A, L/R, D, U) [SEER historic stage A]
All Stages = In situ, Localized, Regional, Distant, Localized/regional (Prostate cases), Unstaged
Localized/regional (Prostate cases) = Localized/regional (Prostate cases)

Incidence Based Mortality for Prostate Cancer in White Males
SEER 9 by Stage (All, Local/Regional, Distant, Unstaged) and Year of Death
Includes the First Malignant Prostate Cancer Diagnosed from 1975-2001 for Each Person that Died from Prostate Cancer
Excludes Death Certificate and Autopsy Only Cases

User Defs. (cont'd)

Distant = Distant
Unstaged = Unstaged

Year of death recode (1975+) [Year of death recode]

1975 = 1975
1976 = 1976
1977 = 1977
1978 = 1978
1979 = 1979
1980 = 1980
1981 = 1981
1982 = 1982
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1996 = 1996
1997 = 1997
1998 = 1998
1999 = 1999
2000 = 2000
2001 = 2001

Output

Display Rates as: Cases per 100,000
Precision: 4 decimal places (default)

Incidence Based Mortality for Prostate Cancer in White Males
SEER 9 by Stage (All, Local/Regional, Distant, Unstaged) and Year of Death
Includes the First Malignant Prostate Cancer Diagnosed from 1975-2001 for Each Person that Died from Prostate Cancer
Excludes Death Certificate and Autopsy Only Cases

	All Stages			Localized/regional (Prostate cases)			Distant			Unstaged		
	Rate	Count	Pop	Rate	Count	Pop	Rate	Count	Pop	Rate	Count	Pop
1975	3.4964	162	8,538,879	0.8749	40	8,538,879	2.0248	99	8,538,879	0.5967	23	8,538,879
1976	9.7663	477	8,574,987	3.1108	148	8,574,987	5.3700	273	8,574,987	1.2854	56	8,574,987
1977	13.5772	704	8,617,969	5.4795	272	8,617,969	6.8400	373	8,617,969	1.2577	59	8,617,969
1978	18.5451	973	8,672,869	8.4021	426	8,672,869	8.5286	471	8,672,869	1.6144	76	8,672,869
1979	20.7144	1,102	8,734,930	9.3100	486	8,734,930	9.5694	529	8,734,930	1.8350	87	8,734,930
1980	23.7931	1,325	8,792,054	11.8206	647	8,792,054	10.5985	606	8,792,054	1.3740	72	8,792,054
1981	24.9652	1,365	8,823,566	12.2953	660	8,823,566	10.8620	612	8,823,566	1.8079	93	8,823,566
1982	26.6609	1,499	8,842,671	14.1423	770	8,842,671	10.9288	647	8,842,671	1.5898	82	8,842,671
1983	28.0961	1,588	8,883,099	14.5501	806	8,883,099	11.4079	676	8,883,099	2.1381	106	8,883,099
1984	27.5944	1,603	8,932,414	14.4677	825	8,932,414	10.8194	659	8,932,414	2.3073	119	8,932,414
1985	28.8251	1,738	8,990,035	15.5725	914	8,990,035	11.4250	717	8,990,035	1.8277	107	8,990,035
1986	30.5097	1,847	9,048,620	15.1609	893	9,048,620	12.3531	790	9,048,620	2.9957	164	9,048,620
1987	32.0506	1,997	9,105,937	16.2440	990	9,105,937	13.0134	843	9,105,937	2.7932	164	9,105,937
1988	32.8105	2,051	9,171,061	16.2519	997	9,171,061	12.9905	850	9,171,061	3.5681	204	9,171,061
1989	33.1394	2,126	9,232,664	17.1265	1,072	9,232,664	12.7248	855	9,232,664	3.2881	199	9,232,664
1990	33.5991	2,200	9,324,817	17.4674	1,121	9,324,817	12.9055	878	9,324,817	3.2263	201	9,324,817
1991	36.0482	2,383	9,430,096	17.9853	1,178	9,430,096	13.3218	911	9,430,096	4.7412	294	9,430,096
1992	36.1056	2,428	9,546,388	18.7449	1,252	9,546,388	12.0573	848	9,546,388	5.3033	328	9,546,388
1993	34.7740	2,372	9,645,535	17.6347	1,196	9,645,535	11.8483	846	9,645,535	5.2910	330	9,645,535
1994	34.7298	2,448	9,726,018	19.0314	1,337	9,726,018	10.4627	769	9,726,018	5.2357	342	9,726,018
1995	33.0469	2,371	9,814,843	18.7233	1,352	9,814,843	8.9468	664	9,814,843	5.3767	355	9,814,843
1996	32.7379	2,387	9,898,846	19.2267	1,410	9,898,846	8.5428	642	9,898,846	4.9685	335	9,898,846
1997	29.5443	2,215	9,985,729	17.4709	1,311	9,985,729	7.5595	587	9,985,729	4.5139	317	9,985,729
1998	28.5819	2,188	10,066,304	17.3070	1,323	10,066,304	7.0179	558	10,066,304	4.2571	307	10,066,304
1999	26.5390	2,067	10,135,731	16.2025	1,269	10,135,731	6.4904	518	10,135,731	3.8461	280	10,135,731
2000	25.1041	1,993	10,203,908	16.1087	1,275	10,203,908	5.9635	489	10,203,908	3.0320	229	10,203,908
2001	25.2590	2,059	10,279,707	16.9568	1,382	10,279,707	5.5694	468	10,279,707	2.7328	209	10,279,707

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Selection

Pop/Case: {Race, Sex, Year Dth, Registry, County.Race recode A} = 'White'
AND {Race, Sex, Year Dth, Registry, County.Sex} = 'Male'

Case Only: {Site and Morphology.Site recode} = 'Prostate'
AND {Site and Morphology.COD to site recode} = 'Prostate'
AND {Dates.Year of diagnosis} != '1973', '1974'
AND {Other.Type of Reporting Source} != 'Autopsy only', 'Death certificate only'
AND {Other.Survival time recode (total # of months)} = 0-120

Option: Select only malignant behavior
Select only the first matching record for each person

Table

Row: Year of death recode (1985+) [Year of death recode]

Column: SEER hist stage A Prostate (A, L/R, D, U) [SEER historic stage A]

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User Defs. (cont'd) Localized/regional (Prostate cases) = Localized/regional (Prostate cases)
 Distant = Distant
 Unstaged = Unstaged

Year of death recode (1985+) [Year of death recode]

1985 = 1985
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Excludes Death Certificate and Autopsy Only Cases

	All Stages			Localized/regional (Prostate cases)			Distant			Unstaged		
	Rate	Count	Pop	Rate	Count	Pop	Rate	Count	Pop	Rate	Count	Pop
1985	28.5286	1,721	8,990,035	15.3714	903	8,990,035	11.3626	713	8,990,035	1.7946	105	8,990,035
1986	29.3355	1,785	9,048,620	14.1881	843	9,048,620	12.2693	784	9,048,620	2.8780	158	9,048,620
1987	30.2941	1,895	9,105,937	14.8364	908	9,105,937	12.8475	834	9,105,937	2.6102	153	9,105,937
1988	30.6839	1,924	9,171,061	14.5812	898	9,171,061	12.7196	833	9,171,061	3.3830	193	9,171,061
1989	30.7560	1,990	9,232,664	15.1235	958	9,232,664	12.4912	841	9,232,664	3.1412	191	9,232,664
1990	30.4235	2,008	9,324,817	14.6908	952	9,324,817	12.6739	863	9,324,817	3.0587	193	9,324,817
1991	32.4785	2,164	9,430,096	14.9930	994	9,430,096	12.9566	890	9,430,096	4.5289	280	9,430,096
1992	31.7677	2,158	9,546,388	15.0265	1,019	9,546,388	11.7187	826	9,546,388	5.0225	313	9,546,388
1993	30.4887	2,102	9,645,535	14.1370	974	9,645,535	11.4843	823	9,645,535	4.8675	305	9,645,535
1994	29.9155	2,144	9,726,018	14.9582	1,080	9,726,018	10.1035	746	9,726,018	4.8539	318	9,726,018
1995	28.3314	2,048	9,814,843	14.7697	1,080	9,814,843	8.5450	637	9,814,843	5.0166	331	9,814,843
1996	27.4085	2,018	9,898,846	15.0189	1,116	9,898,846	8.0096	606	9,898,846	4.3800	296	9,898,846
1997	24.8064	1,877	9,985,729	13.6919	1,041	9,985,729	7.1666	558	9,985,729	3.9479	278	9,985,729
1998	23.5270	1,822	10,066,304	13.2738	1,031	10,066,304	6.6048	528	10,066,304	3.6484	263	10,066,304
1999	21.3861	1,689	10,135,731	12.1599	969	10,135,731	6.1292	491	10,135,731	3.0971	229	10,135,731
2000	19.7737	1,589	10,203,908	11.6949	938	10,203,908	5.5822	461	10,203,908	2.4967	190	10,203,908
2001	19.1260	1,579	10,279,707	12.1401	1,003	10,279,707	5.0506	428	10,279,707	1.9354	148	10,279,707

Rates are per 100,000 and age-adjusted to the 2000 U.S. (19 age groups) standard.