

Cancer Statistics in China

National cancer incidence and mortality in China, 2012



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Cancer registration data are collected by the National Central Cancer Registry based on population from local cancer registries for cancer statistics and published as annual report.

The cancer registration data are not only widely used for cancer control and decision making, but also for scientific research.

This annual report provides a comprehensive overview of cancer incidence and mortality rates and estimates new cancer cases and cancer deaths in 2012.



Quality evaluation of cancer registration data, 2012

Table 1 Quality evaluation of cancer registration data, 2012

Cancer	All areas			Urban			Rural		
	MV (%)	DCO (%)	M/I	MV (%)	DCO (%)	M/I	MV (%)	DCO (%)	M/I
Oral & pharyngx	81.03	1.58	0.45	82.92	1.77	0.44	78.28	1.31	0.47
Nasopharynx	76.05	1.38	0.52	77.86	1.79	0.52	74.05	0.93	0.52
Esophagus	78.16	2.01	0.74	73.91	2.97	0.78	80.14	1.57	0.72
Stomach	77.97	2.60	0.71	76.45	3.16	0.71	79.32	2.11	0.72
Colon & rectum	81.31	1.62	0.49	81.78	1.79	0.49	80.48	1.31	0.49
Liver	37.99	4.00	0.88	38.85	4.43	0.88	37.24	3.63	0.88
Gallbladder	48.45	2.83	0.78	47.65	3.26	0.80	49.80	2.09	0.73
Pancreas	39.89	4.11	0.91	39.99	4.77	0.93	39.74	3.06	0.88
Throat	76.69	2.06	0.54	80.42	2.11	0.52	71.49	2.00	0.56
Lung	55.65	3.50	0.81	56.99	4.09	0.83	54.07	2.79	0.80
Other organs in chest	59.68	2.16	0.49	59.94	2.37	0.50	59.18	1.78	0.47
Bone	48.43	4.59	0.79	48.85	6.23	0.77	48.09	3.25	0.80
Skin melanoma	93.55	0.71	0.52	92.47	0.98	0.55	95.28	0.26	0.46
Breast	89.30	0.66	0.24	90.16	0.63	0.21	87.72	0.72	0.28
Cervix	89.01	0.90	0.26	89.16	1.11	0.23	88.83	0.65	0.29
Uterus	85.43	1.15	0.31	88.34	1.16	0.27	81.71	1.14	0.35
Ovary	79.41	1.36	0.42	80.21	1.75	0.44	78.16	0.75	0.39
Prostate	72.62	1.48	0.43	75.55	1.49	0.40	64.15	1.48	0.51
Testis	82.64	0.41	0.19	81.21	0.67	0.14	84.95	0.00	0.27
Kidney	73.86	1.54	0.34	75.97	1.66	0.33	67.97	1.18	0.38
Bladder	76.83	1.51	0.40	78.25	1.65	0.39	74.39	1.29	0.42
Brain, CNS	48.49	3.18	0.62	54.53	3.33	0.59	42.06	3.01	0.65
Thyroid gland	91.63	0.23	0.06	93.29	0.17	0.05	87.02	0.37	0.10
Lymphoma	92.08	0.55	0.60	92.25	0.51	0.59	91.79	0.61	0.60
Leukemia	91.13	1.39	0.71	90.84	1.33	0.71	91.48	1.45	0.71
Other cancers	67.46	2.63	0.52	68.49	2.81	0.54	65.93	2.36	0.49
Total	69.13	2.38	0.62	70.63	2.63	0.59	67.31	2.09	0.65

MV%, proportion of morphological verification; DCO%, percentage of cancer cases identified with death certification only; M/I, mortality to incidence ratio; CNS, central nervous system.



Cancer incidence and mortality in China, 2012

Table 2 Cancer incidence in China, 2012

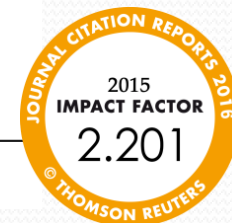
Areas	Sex	Cases (thousand)	Crude incidence (1/10 ⁵)	ASIRC (1/10 ⁵)*	ASIRW (1/10 ⁵)**	Cumulative rate 0–74 (%)
All areas	Both	3,586.2	264.85	191.89	187.83	21.82
	Male	2,007.6	289.30	216.17	214.33	25.39
	Female	1,578.6	239.15	170.08	163.81	18.32
Urban	Both	1,973.0	277.17	195.56	190.88	21.91
	Male	1,062.0	292.31	212.68	210.63	24.71
	Female	911.0	261.39	181.30	174.00	19.28
Rural	Both	1,613.2	251.20	187.10	183.91	21.67
	Male	945.6	286.00	220.03	218.42	26.14
	Female	667.6	214.28	156.14	151.35	17.14

*, age-standardized incidence rate (China population, 2000); **, age-standardized incidence rate (Segi's population).

Table 4 Cancer mortality in China, 2012

Area	Sex	Deaths (thousand)	Mortality (1/10 ⁵)	ASMRC (1/10 ⁵)*	ASMRW (1/10 ⁵)**	Accumulated rate 0–74 (%)
All areas	Both	2,186.6	161.49	112.34	111.25	12.61
	Male	1,380.9	198.99	146.51	145.57	16.57
	Female	805.7	122.06	80.00	78.89	8.66
Urban	Both	1,131.8	159.00	107.23	106.13	11.70
	Male	706.2	194.37	138.60	137.74	15.30
	Female	425.7	122.14	77.74	76.55	8.18
Rural	Both	1,054.8	164.24	118.22	117.06	13.63
	Male	674.7	204.06	155.46	154.28	17.99
	Female	380.1	121.98	82.64	81.60	9.21

*, age-standardized mortality rate (China population, 2000); **, age-standardized mortality rate (Segi's population).



Age-specific incidence rates of overall cancers, 2012 (1/10⁵)

Table 3 Age-specific incidence rates of overall cancers, 2012 (1/10⁵)

Age groups	All areas			Urban			Rural		
	Both	Male	Female	Both	Male	Female	Both	Male	Female
Total	264.85	289.30	239.15	277.17	292.31	261.39	251.20	286.00	214.28
0-	12.57	14.04	10.85	15.24	17.62	12.53	10.16	10.88	9.31
1-	11.57	12.22	10.82	13.42	14.19	12.54	9.90	10.46	9.23
5-	7.52	8.25	6.68	7.45	8.19	6.61	7.59	8.30	6.74
10-	8.51	8.73	8.24	8.90	9.19	8.57	8.15	8.33	7.93
15-	10.78	11.09	10.43	11.39	11.64	11.12	10.27	10.64	9.84
20-	17.10	14.13	20.37	17.82	14.31	21.70	16.56	14.00	19.38
25-	29.44	22.48	36.74	33.22	23.64	43.02	25.77	21.39	30.47
30-	51.98	39.22	64.85	57.19	40.81	73.46	43.89	36.81	51.22
35-	87.21	65.99	108.86	93.10	65.53	120.80	79.12	66.61	92.16
40-	154.56	119.56	190.99	158.95	113.97	206.24	148.83	126.92	171.37
45-	257.22	225.13	290.71	263.20	214.31	315.47	249.76	239.02	260.63
50-	342.00	344.36	339.51	358.35	346.12	371.54	319.30	341.85	296.24
55-	524.96	590.89	457.09	518.24	560.56	474.60	533.06	627.57	436.00
60-	721.39	877.75	563.47	698.34	826.18	569.96	746.37	933.29	556.41
65-	937.91	1,188.28	688.42	927.19	1,149.09	710.16	949.13	1,228.51	665.23
70-	1,201.24	1,549.43	866.37	1,213.98	1,544.16	910.21	1,186.79	1,555.11	814.28
75-	1,403.42	1,832.12	1,022.65	1,437.24	1,839.68	1,082.56	1,363.42	1,823.25	951.23
80-	1,512.45	2,052.09	1,084.52	1,621.07	2,146.27	1,180.40	1,386.32	1,934.98	979.04
85+	1,287.68	1,821.92	968.92	1,414.24	1,956.71	1,066.59	1,138.88	1,646.99	860.61



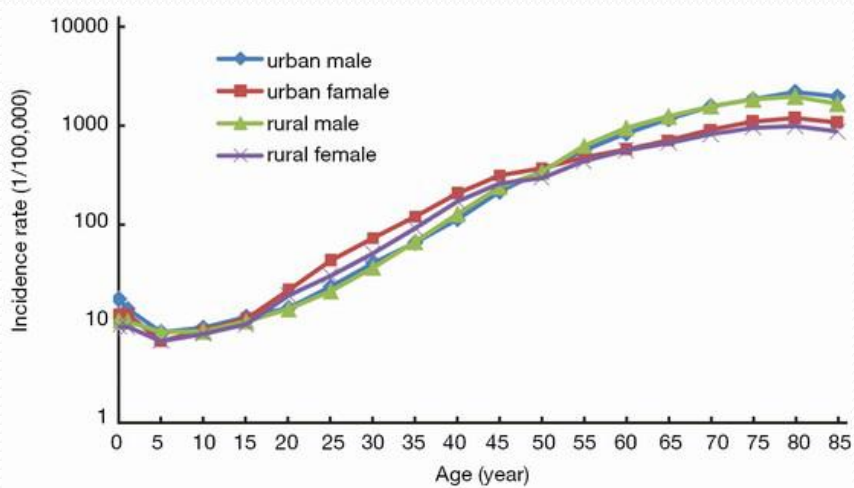
Age-specific mortality rates of overall cancers, 2012 (1/10⁵)

Table 5 Age-specific mortality of overall cancers, 2012 (1/10⁵)

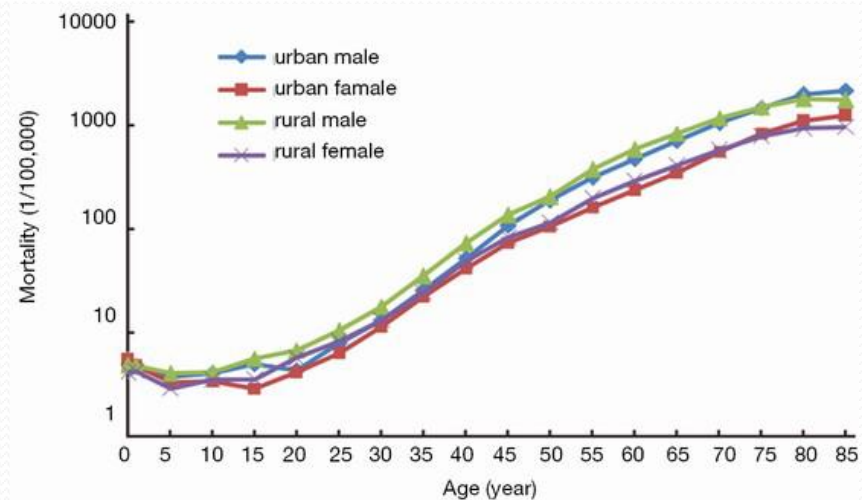
Age group	All areas			Urban			Rural		
	Both	Male	Female	Both	Male	Female	Both	Male	Female
All	161.49	198.99	122.06	159.00	194.37	122.14	164.24	204.06	121.98
0-	4.87	4.93	4.80	5.22	4.97	5.51	4.55	4.89	4.14
1-	4.70	4.84	4.53	4.83	4.86	4.80	4.57	4.81	4.28
5-	3.54	3.91	3.11	3.55	3.75	3.33	3.53	4.06	2.91
10-	3.85	4.16	3.48	3.78	4.10	3.41	3.91	4.21	3.54
15-	4.41	5.41	3.26	4.04	5.03	2.90	4.73	5.72	3.56
20-	5.45	5.78	5.08	4.29	4.37	4.20	6.31	6.84	5.73
25-	8.36	9.31	7.37	7.17	7.99	6.34	9.51	10.56	8.39
30-	13.77	15.27	12.26	12.43	13.34	11.52	15.86	18.20	13.43
35-	27.01	30.43	23.53	24.53	26.31	22.74	30.43	35.98	24.63
40-	54.22	62.42	45.67	47.86	52.99	42.46	62.49	74.83	49.80
45-	102.02	123.78	79.32	93.72	110.84	75.42	112.39	140.40	84.05
50-	158.16	201.15	112.82	153.25	194.38	108.90	164.97	210.80	118.11
55-	268.54	350.85	183.83	245.03	321.47	166.21	296.93	386.37	205.06
60-	409.27	546.59	270.58	365.61	488.63	242.06	456.58	609.01	301.66
65-	594.84	798.45	391.94	545.74	733.78	361.83	646.21	864.84	424.04
70-	863.18	1,152.18	585.24	823.18	1,088.66	578.93	908.56	1,220.83	592.75
75-	1,173.85	1,544.84	844.34	1,180.13	1,532.34	869.71	1,166.43	1,559.49	814.09
80-	1,467.65	1,982.06	1,059.74	1,562.53	2,062.72	1,142.85	1,357.48	1,881.74	968.30
85+	1,491.41	2,060.85	1,151.64	1,663.18	2,242.43	1,291.96	1,289.44	1,825.21	996.02



Age-specific cancer incidence rates in urban and rural areas, 2012



Age-specific cancer mortality in urban and rural areas, 2012



Top 10 cancer incidence in China, 2012

Table 6 Top 10 cancer incidence in China, 2012

Rank	Both sexes					Male					Female				
	Site	Cases (thousand)	Incidence (1/10 ⁵)	%	ASR* (1/10 ⁵)	Site	Cases (thousand)	Incidence (1/10 ⁵)	%	ASR* (1/10 ⁵)	Site	Cases (thousand)	Incidence (1/10 ⁵)	%	ASR* (1/10 ⁵)
1	Lung	704.8	52.06	19.65	36.28	Lung	469.9	67.71	23.41	49.62	Breast	272.7	41.32	17.28	30.43
2	Stomach	423.5	31.28	11.81	22.06	Stomach	297.9	42.93	14.84	31.60	Lung	234.9	35.59	14.88	23.56
3	Liver	366.1	27.04	10.21	19.44	Liver	274.0	39.48	13.65	29.48	Colorectum	142.2	21.55	9.01	14.54
4	Colorectum	331.3	24.47	9.24	17.29	Esophagus	203.0	29.25	10.11	21.37	Stomach	125.6	19.03	7.96	12.85
5	Esophagus	286.7	21.17	7.99	14.73	Colorectum	189.1	27.24	9.42	20.18	Cervix	98.5	14.93	6.24	11.39
6	Breast	272.7	41.32	7.60	30.43	Bladder	57.0	8.21	2.84	6.01	Liver	92.1	13.95	5.83	9.37
7	Thyroid	118.6	8.76	3.31	7.36	Prostate	56.5	8.14	2.82	5.90	Thyroid	89.7	13.58	5.68	11.28
8	Cervix	98.5	14.93	2.75	11.39	Pancreas	49.5	7.14	2.47	5.24	Esophagus	83.7	12.68	5.30	8.27
9	Brain, CNS	88.0	6.50	2.46	5.13	Brain, CNS	43.6	6.28	2.17	5.16	Uterus	61.6	9.34	3.90	6.72
10	Pancreas	86.0	6.35	2.40	4.41	Lymphoma	42.5	6.13	2.12	4.81	Ovary	49.4	7.48	3.13	5.69

*, age-standardized incidence rate (China population 2000); CNS, central nervous system.



Top 10 cancer mortality in China, 2012

Table 7 Top 10 cancer mortality in China, 2012

Rank	Both sexes					Male					Female				
	Site	Deaths (thousand)	Mortality (1/10 ⁵)	%	ASR* (1/10 ⁵)	Site	Deaths (thousand)	Mortality (1/10 ⁵)	%	ASR* (1/10 ⁵)	Site	Deaths (thousand)	Mortality (1/10 ⁵)	%	ASR* (1/10 ⁵)
1	Lung	569.4	42.05	26.04	28.81	Lung	386.6	55.71	28.00	40.64	Lung	182.8	27.70	22.69	16.67
2	Liver	321.2	23.72	14.69	16.84	Liver	237.7	34.25	17.21	25.40	Stomach	92.6	14.02	11.49	8.97
3	Stomach	298.5	22.04	13.65	15.16	Stomach	205.9	29.67	14.91	21.72	Liver	83.5	12.65	10.36	8.31
4	Esophagus	210.9	15.58	9.65	10.62	Esophagus	149.1	21.48	10.80	15.63	Colorectum	68.2	10.34	8.47	6.45
5	Colorectum	159.3	11.77	7.29	7.94	Colorectum	91.1	13.13	6.60	9.54	Esophagus	61.9	9.37	7.68	5.82
6	Pancreas	77.5	5.72	3.54	3.92	Pancreas	44.4	6.40	3.22	4.68	Breast	61.6	9.33	7.64	6.43
7	Breast	61.6	9.33	2.82	6.43	Leukemia	30.6	4.41	2.22	3.70	Pancreas	33.1	5.01	4.10	3.19
8	Brain, CNS	53.6	3.96	2.45	3.03	Brain, CNS	29.8	4.30	2.16	3.42	Cervix	24.5	3.72	3.04	2.64
9	Leukemia	52.1	3.85	2.38	3.13	Lymphoma	26.2	3.78	1.90	2.87	Brain, CNS	23.8	3.60	2.95	2.64
10	Lymphoma	43.0	3.18	1.97	2.30	Prostate	23.8	3.42	1.72	2.37	Leukemia	21.5	3.26	2.67	2.58

*, age-standardized mortality rate (China population 2000); CNS, central nervous system.



Top 10 cancer incidence in urban areas of China, 2012

Table 8 Top 10 cancer incidence in urban areas of China, 2012

Rank	Both sexes					Male					Female				
	Site	Cases (thousand)	Incidence (1/10 ⁵)	%	ASR* (1/10 ⁵)	Site	Cases (thousand)	Incidence (1/10 ⁵)	%	ASR* (1/10 ⁵)	Site	Cases (thousand)	Incidence (1/10 ⁵)	%	ASR* (1/10 ⁵)
1	Lung	378.2	53.13	19.17	36.13	Lung	249.7	68.74	23.52	49.13	Breast	180.6	51.82	19.83	36.48
2	Colorectum	210.8	29.61	10.68	20.34	Stomach	137.7	37.90	12.97	27.25	Lung	128.5	36.86	14.10	23.83
3	Stomach	197.7	27.77	10.02	19.16	Liver	129.9	35.75	12.23	25.65	Colorectum	90.8	26.06	9.97	17.08
4	Breast	180.6	51.82	9.15	36.48	Colorectum	120.0	33.02	11.30	23.75	Thyroid	67.1	19.26	7.37	15.40
5	Liver	171.9	24.15	8.71	16.79	Esophagus	68.2	18.76	6.42	13.36	Stomach	60.0	17.21	6.58	11.41
6	Esophagus	90.5	12.71	4.59	8.67	Prostate	41.3	11.38	3.89	8.11	Cervix	56.3	16.14	6.18	11.78
7	Thyroid	89.5	12.58	4.54	10.12	Bladder	35.7	9.82	3.36	6.98	Liver	42.1	12.07	4.62	7.90
8	Cervix	56.3	16.14	2.85	11.78	Kidney	31.0	8.54	2.92	6.22	Uterus	35.3	10.14	3.88	7.03
9	Pancreas	52.1	7.32	2.64	4.97	Pancreas	30.0	8.25	2.82	5.90	Ovary	30.6	8.78	3.36	6.44
10	Kidney	49.0	6.88	2.48	4.87	Lymphoma	26.8	7.37	2.52	5.63	Brain, CNS	23.7	6.81	2.61	5.03

*, age-standardized incidence rate (China population 2000); CNS, central nervous system.



Top 10 cancer mortality in urban areas in China, 2012

Table 9 Top 10 cancer mortality in urban areas in China, 2012

Rank	Both sexes					Male					Female				
	Site	Deaths (thousand)	Mortality (1/10 ⁵)	%	ASR* (1/10 ⁵)	Site	Deaths (thousand)	Mortality (1/10 ⁵)	%	ASR* (1/10 ⁵)	Site	Deaths (thousand)	Mortality (1/10 ⁵)	%	ASR* (1/10 ⁵)
1	Lung	309.3	43.46	27.33	28.98	Lung	208.5	57.38	29.52	40.73	Lung	100.9	28.94	23.69	17.97
2	Liver	149.7	21.03	13.23	14.41	Liver	111.9	30.79	15.84	21.94	Stomach	43.2	12.38	10.14	7.74
3	Stomach	136.2	19.13	12.03	12.82	Stomach	93.0	25.61	13.17	18.25	Colorectum	42.6	12.23	10.02	7.38
4	Colorectum	99.7	14.01	8.81	9.12	Colorectum	57.1	15.72	8.09	11.01	Liver	37.8	10.85	8.89	6.91
5	Esophagus	69.1	9.71	6.10	6.48	Esophagus	52.2	14.37	7.39	10.16	Breast	36.2	10.40	8.52	6.84
6	Pancreas	47.8	6.72	4.23	4.49	Pancreas	27.2	7.47	3.85	5.30	Pancreas	20.7	5.94	4.86	3.70
7	Breast	36.2	10.40	3.20	6.84	Leukaemia	16.9	4.65	2.39	3.75	Esophagus	16.9	4.85	3.97	2.94
8	Leukaemia	28.8	4.05	2.55	3.17	Lymphoma	16.4	4.53	2.33	3.34	Gallbladder	12.9	3.71	3.04	2.25
9	Lymphoma	27.2	3.82	2.40	2.70	Prostate	15.9	4.39	2.26	2.93	Ovary	12.9	3.70	3.03	2.49
10	Brain, CNS	26.5	3.72	2.34	2.77	Brain, CNS	14.9	4.09	2.10	3.15	Cervix	12.3	3.54	2.90	2.43

*, age-standardized mortality rate (China population 2000); CNS, central nervous system.



Top 10 cancer incidence in rural areas of China, 2012

Table 10 Top 10 cancer incidence in rural areas of China, 2012

Rank	Both sexes					Male					Female				
	Site	Cases (thousand)	Incidence (1/10 ⁵)	%	ASR* (1/10 ⁵)	Site	Cases (thousand)	Incidence (1/10 ⁵)	%	ASR* (1/10 ⁵)	Site	Cases (thousand)	Incidence (1/10 ⁵)	%	ASR* (1/10 ⁵)
1	Lung	326.6	50.86	20.25	36.44	Lung	220.2	66.59	23.28	50.20	Lung	106.5	34.17	15.95	23.25
2	Stomach	225.9	35.17	14.00	25.38	Stomach	160.2	48.46	16.95	36.55	Breast	92.1	29.56	13.80	23.07
3	Esophagus	196.2	30.55	12.16	21.67	Liver	144.1	43.58	15.24	34.10	Stomach	65.6	21.06	9.83	14.49
4	Liver	194.1	30.23	12.03	22.62	Esophagus	134.8	40.78	14.26	30.50	Esophagus	61.4	19.70	9.20	13.05
5	Colorectum	120.5	18.76	7.47	13.77	Colorectum	69.1	20.90	7.31	16.06	Colorectum	51.4	16.50	7.70	11.56
6	Breast	92.1	29.56	5.71	23.07	Bladder	21.3	6.43	2.25	4.89	Liver	50.0	16.06	7.50	11.14
7	Cervix	42.3	13.57	2.62	10.79	Brain, CNS	21.1	6.39	2.23	5.38	Cervix	42.3	13.57	6.33	10.79
8	Brain, CNS	41.8	6.51	2.59	5.27	Pancreas	19.6	5.92	2.07	4.48	Uterus	26.3	8.44	3.94	6.37
9	Pancreas	33.8	5.27	2.10	3.75	Leukemia	18.6	5.62	1.97	5.04	Thyroid	22.5	7.23	3.38	6.19
10	Leukemia	32.8	5.11	2.04	4.50	Lymphoma	15.7	4.75	1.66	3.86	Brain, CNS	20.7	6.64	3.10	5.16

*, age-standardized incidence rate (China population 2000); CNS, central nervous system.



Top 10 cancer mortality in rural areas of China, 2012

Table 11 Top 10 cancer mortality in rural areas of China, 2012

Rank	Both sexes					Male					Female				
	Site	Deaths (thousand)	Mortality (1/10 ⁵)	%	ASR* (1/10 ⁵)	Site	Deaths (thousand)	Mortality (1/10 ⁵)	%	ASR* (1/10 ⁵)	Site	Deaths (thousand)	Mortality (1/10 ⁵)	%	ASR* (1/10 ⁵)
1	Lung	260.1	40.50	24.66	28.60	Lung	178.1	53.87	26.40	40.48	Lung	82.0	26.30	21.56	17.33
2	Liver	171.5	26.70	16.26	19.77	Liver	125.8	38.05	18.65	29.58	Stomach	49.4	15.86	13.00	10.38
3	Stomach	162.3	25.27	15.39	17.84	Stomach	112.9	34.14	16.73	25.66	Liver	45.7	14.66	12.02	9.98
4	Esophagus	141.8	22.09	13.45	15.35	Esophagus	96.9	29.30	14.36	21.83	Esophagus	45.0	14.44	11.83	9.13
5	Colorectum	59.6	9.28	5.65	6.57	Colorectum	34.0	10.28	5.04	7.82	Colorectum	25.6	8.21	6.73	5.38
6	Pancreas	29.6	4.61	2.81	3.26	Pancreas	17.3	5.22	2.56	3.95	Breast	25.3	8.12	6.66	5.97
7	Brain, CNS	27.1	4.23	2.57	3.33	Brain, CNS	15.0	4.53	2.22	3.71	Pancreas	12.4	3.97	3.25	2.61
8	Breast	25.3	8.12	2.40	5.97	Leukemia	13.7	4.16	2.04	3.64	Cervix	12.2	3.92	3.21	2.86
9	Leukemia	23.3	3.63	2.21	3.09	Lymphoma	9.8	2.97	1.45	2.33	Brain, CNS	12.2	3.90	3.20	2.95
10	Lymphoma	15.8	2.47	1.50	1.85	Bladder	8.9	2.68	1.32	1.99	Leukemia	9.6	3.07	2.52	2.53

*, age-standardized mortality rate (China population 2000); CNS, central nervous system.



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联系方式:

Chinese Journal of Cancer Research

网址: www.cjcrcn.org

地址: 北京市海淀区阜成路52号
北京大学肿瘤医院

邮编: 100142

电话/传真: 010-88196612

Email: editor@cjcrcn.org



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