

Supplementary Online Content

Johnson SB, Park HS, Gross CP, Yu JB. Complementary medicine, refusal of conventional cancer therapy, and survival among patients with curable cancers. *JAMA Oncol*. Published online July 19, 2018. doi:10.1001/jamaoncol.2018.2487

eTable 1. Characteristics of Patients With Breast, Prostate, Lung and Colorectal Cancer

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This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Characteristics of Patients With Breast, Prostate, Lung and Colorectal Cancer

Characteristics	No Complementary Medicine, No. (%)	Complementary Medicine, No. (%)
Total	1,901,557 (99.99%)	258 (0.01%)
Mean age (inter-quartile range)	62 (55-71)	56 (48-64)
Cancer Type		
Breast	732,050 (38.5%)	186 (72.1%)
Prostate	724,521 (38.1%)	27 (10%)
Lung	291,381 (15.3%)	15 (6%)
Colorectal	153,605 (8.1%)	30 (12%)
Gender		
Male	973,315 (51.2%)	59 (23%)
Female	928,242 (48.8%)	199 (77.1%)
Race		
White	1,510,216 (79.4%)	209 (81.0%)
Black	226,470 (11.9%)	18 (7%)
Hispanic	75,988 (4.0%)	10 (4%)
Other	88,883 (4.7%)	21 (8%)
Income*		
<\$48,000	726,517 (38.6%)	82 (32%)
≥\$48,000	1,155,676 (61.4%)	171 (67.6%)
Education†		
<80% HSE	685,740 (37.4%)	67 (27%)
≥80% HSE	1,148,261 (62.6%)	179 (72.8%)
Residence Setting		
Metropolitan	1,548,073 (84.0%)	215 (88.1%)
Non-metropolitan	295,409 (16.0%)	29 (12%)
Geographic area		
Northeast	383,822 (20.8%)	26 (11%)
South Atlantic	412,057 (22.3%)	39 (16%)
Midwest	490,117 (26.5%)	49 (20%)
South	252,657 (13.7%)	11 (5%)
Intermountain West	80,789 (4.4%)	26 (11%)
Pacific	228,993 (12.4%)	94 (38%)
Insurance Type		
None	42,381 (2.2%)	#
Private	943,203 (49.6%)	174 (67.4%)
Medicaid	88,220 (4.6%)	20 (8%)
Medicare	773,958 (40.7%)	56 (22%)
Government/Unknown	53,795 (2.8%)	#
Facility Type		
Academic	610,061 (36.8%)	94 (43%)
Community	1,049,395 (63.2%)	127 (57.5%)
Clinical Stage		
I	699,627 (36.8%)	110 (42.6%)
II	925,393 (48.7%)	94 (36%)
III	276,537 (14.5%)	54 (21%)
Charlson-Deyo Comorbidity		
0	1,531,339 (80.5%)	237 (91.9%)
1	293,306 (15.4%)	19 (7%)
≥2	76,912 (4.1%)	#

* Income is expressed as median household income by zip code of residence. Abbreviations: HSE-High school education

† Education is expressed as the percentage of residents by zip code receiving a high school diploma

Values with n<10 are not reported

eTable 2. Logistic Regression of Covariates Associated With Selection of Complementary Medicine Clustered by Facility Type

Variables	Odds Ratio* (95%CI)	P Value†
Age, continuous	0.97 (0.95-0.98)	<.001
Cancer Type		
Prostate	1.00 (Reference)	
Breast	7.26 (3.29-16.02)	<.001
Lung	1.28 (0.56-2.95)	.56
Colorectal	4.20 (2.23-7.95)	<.001
Gender		
Male	1.00 (Reference)	
Female	0.71 (0.38-1.36)	.30
Race		
White	1.00 (Reference)	
Black	0.59 (0.32-1.11)	.10
Hispanic	0.57 (0.28-1.17)	.13
Other	0.96 (0.56-1.65)	.88
Income‡		
<\$48,000	1.00 (Reference)	
>\$48,000	0.78 (0.55-1.12)	.18
Education§		
<80% HSE	1.00 (Reference)	
≥80% HSE	1.30 (0.90-1.87)	.16
Residence Setting		
Metropolitan	1.00 (Reference)	
Non-metropolitan	0.96 (0.61-1.53)	.87
Geographic area		
Northeast	1.00 (Reference)	
South Atlantic	1.46 (0.74-2.90)	.28
Midwest	1.15 (0.61-2.18)	.67
South	0.46 (0.17-1.22)	.12
Intermountain West	4.65 (2.03-10.64)	<.001
Pacific	6.61 (3.54-12.37)	<.001
Insurance Type		
None	1.00 (Reference)	
Private	0.95 (0.38-2.37)	.92
Medicaid	1.26 (0.47-3.43)	.65
Medicare	0.88 (0.33-2.34)	.80
Government/Unknown	0.30 (0.06-1.57)	.15
Facility Type		
Community	1.00 (Reference)	
Academic	1.88 (1.22-2.90)	.004
Clinical Stage		
I	1.00 (Reference)	
II	0.96 (0.69-1.34)	.82
III	1.68 (1.12-2.51)	.012
Charlson-Devo Comorbidity		
0	1.00 (Reference)	
1	0.51 (0.29-0.90)	.020
>2	0.17 (0.02-1.25)	.082

* Multivariate model. Abbreviations: CI=confidence interval; HSE=High school education.

† P values were calculated by a two-sided multivariable logistic regression

‡ Income is expressed as median household income by zip code of residence

§ Education is expressed as the percentage of residents by zip code receiving a high school

eTable 3. Patient Characteristics of 4:1 Matched Groups				
	Total, 1290	No Complementary Medicine, 1032	Complementary Medicine, 258	P Value
Mean age (range)	56 (23-90)	56 (23-90)	56 (24-87)	.80*
Cancer				1.0**
Breast	930 (72.1%)	744 (80.0%)	186 (20.0%)	
Prostate	135 (10.5%)	108 (80.0%)	27 (20.0%)	
Lung	75 (6%)	60 (80.0%)	15 (20.0%)	
Colorectal	150 (11.6%)	120 (80.0%)	30 (20.0%)	
Gender				.95**
Male	293 (22.7%)	234 (22.7%)	59 (22.9%)	
Female	997 (77.3%)	798 (77.3%)	997 (77.1%)	
Race				.82**
White	1050 (81.4%)	841 (81.5%)	209 (81.0%)	
Black	102 (7.9%)	84 (8%)	18 (7%)	
Hispanic	46 (3.6%)	36 (4%)	10 (4%)	
Other	92 (7.1%)	71 (7%)	21 (8%)	
Income ^a				.33**
<\$47,999	445 (35.0 %)	363 (35.7%)	82 (32%)	
≥\$48,000	825 (65.0%)	654 (64.3%)	171 (67.6%)	
Education ^b				.008**
<80% HSE	426 (34.4%)	359 (36.2%)	67 (27%)	
≥80% HSE	811 (65.6%)	632 (63.8%)	179 (72.8%)	
Residence Setting				.22**
Metropolitan	1060 (85.6%)	845 (85.0%)	215 (88.1%)	
Non-metropolitan	178 (14.4%)	149 (15.0%)	29 (12%)	
Geographic area				<.001**
Northeast	216 (17.7%)	190 (19.5%)	26 (11%)	
South Atlantic	218 (17.9%)	179 (18.4%)	39 (16%)	
Midwest	325 (26.6%)	276 (28.3%)	49 (20%)	
South	149 (12.2%)	138 (14.1%)	11 (5%)	
Intermountain West	73 (6.0%)	47 (5%)	26 (11%)	
Pacific	239 (19.6%)	145 (14.9%)	94 (38%)	
Insurance Type				.94**
None	27 (2.1%)	21 (2%)	6 (2%)	
Private	879 (68.1%)	705 (68.3%)	174 (67.4%)	
Medicaid	98 (7.6%)	78 (8%)	20 (8%)	
Medicare	280 (21.7%)	224 (21.7%)	56 (22%)	
Government/Unknown	6 (0.5%)	4 (1%)	2 (1%)	
Facility Type				.035**
Community	700 (63.6%)	573 (65.1%)	127 (57.5%)	
Academic	401 (36.4%)	307 (34.9%)	94 (43%)	
Clinical Stage				.93**
I	546 (42.3%)	436 (42.3%)	110 (42.6%)	
II	482 (37.4%)	388 (37.6%)	94 (36%)	
III	262 (20.3%)	208 (20.1%)	54 (21%)	
Charlson-Deyo Comorbidity				.95**
0	1179 (91.4%)	942 (91.3%)	237 (91.9%)	
1	101 (7.8%)	82 (8%)	19 (7%)	
≥2	10 (0.8%)	8 (1%)	2 (1%)	
*t test				
**Chi square				
Abbreviations: HSE-High school education				