

Supplementary Table S1 Frequency and percentage of patients who achieved a quality score ≥ 1 , received hospice/palliative care, systemic therapy and had CSS > 1 year relative to different predictors (% represent row percentages)

	Quality Score ≥ 1	Palliative/hospice service	Systemic therapy	CSS > 1 year
	N (%)	N (%)	N (%)	N (%)
Age group				
66-70	8,551 (94.9%)	7,203 (84.2%)	6,116 (71.5%)	1,478 (17.3%)
71-75	2,498 (92.4%)	2,225 (82.3%)	1,537 (56.8%)	272 (10.1%)
76-80	1,637 (90.9%)	1,480 (82.2%)	828 (46.0%)	131 (7.3%)
>80	941 (86.3%)	883 (81.0%)	313 (28.7%)	52 (4.8%)
Sex				
Female	7,031 (93.9%)	6,382 (85.2%)	4,547 (60.7%)	1,016 (13.6%)
Male	6,161 (92.5%)	5,409 (81.2%)	4,247 (63.8%)	917 (13.8%)
CCI				
= 6	11,491 (93.9%)	10,230 (83.6%)	7,929 (64.8%)	1,789 (14.6%)
> 6	1,701 (89.0%)	1,561 (81.7%)	865 (45.3%)	144 (7.5%)
SVI (census track level)				
Low	4,238 (95.2%)	3,835 (86.1%)	2,984 (67.0%)	710 (15.9%)
Average	4,171 (93.8%)	3,775 (84.9%)	2,803 (63.0%)	637 (14.3%)
High	4,098 (92.2%)	3,607 (81.2%)	2,604 (58.6%)	509 (11.4%)
Marital status				
Single	5,318 (92.2%)	4,809 (83.4%)	3,318 (54.4%)	615 (10.7%)
Married	7,396 (94.1%)	6,546 (83.3%)	5,357 (68.2%)	1,256 (16.0%)
Rurality				
Non-metropolitan	1,780 (93.1%)	1,538 (80.4%)	1,258 (65.8%)	206 (10.8%)
Metropolitan	11,412 (93.3%)	10,253 (83.8%)	7,536 (61.6%)	1,727 (14.1%)
Median household income				
Bottom quartile	3,025 (91.4%)	2,673 (80.8%)	1,890 (57.1%)	326 (9.8%)
Second quartile	3,144 (94.3%)	2,818 (84.5%)	2,096 (62.9%)	465 (13.9%)
Third quartile	3,143 (94.7%)	2,851 (85.9%)	2,091 (63.0%)	484 (14.6%)
Top quartile	3,176 (94.5%)	2,859 (85.1%)	2,301 (68.5%)	579 (17.2%)
Year Period				
2005-2008	3,192 (86.8%)	2,721 (74.0%)	1,840 (50.1%)	363 (10.0%)
2009-2012	3,340 (93.2%)	2,952 (82.3%)	2,254 (62.9%)	418 (11.7%)
2013-2016	3,747 (96.0%)	3,442 (88.2%)	2,641 (67.7%)	623 (16.0%)
2017-2019	2,913 (97.6%)	2,676 (89.6%)	2,059 (69.0%)	529 (17.7%)

CCI: charlson comorbidity index; SVI: social vulnerability index; CSS: cancer-specific survival

Supplementary Table S2 Multivariable logistic regression analysis model to assess factors including SVI subthemes associated with a Quality Score ≥ 1

Variables	OR	95%CI		P-value
Age group				
66-70	Ref			
71-75	0.99	0.81	1.20	0.891
76-80	0.91	0.73	1.14	0.413
>80	0.69	0.54	0.89	0.004
Female (ref: male)	1.37	1.17	1.60	<0.001
CCI > 6 (ref: CCI= 6)	0.56	0.47	0.67	<0.001
SVI subtheme– Socioeconomic status				
Low	Ref			
Average	0.77	0.61	0.98	0.037
High	0.66	0.48	0.90	0.008
SVI subtheme – Household characteristics				
Low	Ref			
Average	1.05	0.87	1.28	0.603
High	1.11	0.88	1.40	0.364
SVI subtheme – Racial and ethnic minority status				
Low	Ref			
Average	0.91	0.75	1.11	0.355
High	0.75	0.60	0.93	0.008
SVI subtheme – Housing type and transportation				
Low	Ref			
Average	1.12	0.91	1.37	0.279
High	1.12	0.89	1.40	0.348
Married (ref: single)	1.31	1.12	1.54	0.001
Metropolitan (ref: non-metropolitan)	0.99	0.78	1.26	0.951
Median household income				
Bottom quartile	Ref			
Second quartile	1.35	1.08	1.69	0.008
Third quartile	1.33	1.00	1.75	0.047
Top quartile	1.08	0.77	1.52	0.639
Year period				
2005-2008	Ref			
2009-2012	1.88	1.57	2.24	<0.001
2013-2016	3.21	2.60	3.97	<0.001
2017-2019	5.22	3.95	6.90	<0.001

SVI: social vulnerability index; CCI: charlson comorbidity index; OR: odds ratio; CI: confidence interval

Supplementary Table S3 Multivariable logistic regression analysis to assess factors associated with a Quality Score ≥ 1 with interaction between year period and SVI

Variables	OR	95%CI		P-value
Age group				
66-70	Ref			
71-75	0.99	0.81	1.20	0.912
76-80	0.92	0.74	1.15	0.461
>80	0.70	0.55	0.90	0.005
Female (ref: male)	1.37	1.17	1.60	<0.001
CCI > 6 (ref: CCI=6)	0.56	0.47	0.67	<0.001
Married (ref: single)	1.32	1.12	1.54	0.001
Metropolitan (ref: non-metropolitan)	0.88	0.70	1.10	0.269
Median household income				
Bottom quartile	Ref			
Second quartile	1.40	1.13	1.73	0.002
Third quartile	1.40	1.09	1.79	0.009
Top quartile	1.11	0.83	1.48	0.475
Year Period * SVI				
2005-2008 - Low SVI	Ref			
2005-2008 – Average SVI	0.93	0.69	1.27	0.667
2005-2008 – High SVI	0.88	0.64	1.23	0.466
2009-2012 – Low SVI	2.47	1.74	3.50	<0.001
2009-2012 – Average SVI	1.42	1.03	1.95	0.030
2009-2012 – High SVI	1.65	1.17	2.33	0.005
2013-2016 – Low SVI	4.10	2.76	6.08	<0.001
2013-2016 – Average SVI	2.88	1.99	4.16	<0.001
2013-2016 – High SVI	2.45	1.67	3.59	<0.001
2017-2019 – Low SVI	9.21	5.10	16.62	<0.001
2017-2019 – Average SVI	4.62	2.86	7.45	<0.001
2017-2019 – High SVI	3.36	2.13	5.29	<0.001

SVI: social vulnerability index; CCI: charlson comorbidity index; OR: odds ratio; CI: confidence interval