Supplemental Online Content

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eMethods

- eTable 1. Incidence of NSCLC in the US by Histology 2010-2017
- eTable 2. Incidence of NSCLC in the US, 2010-2017
- eTable 3. Incidence of NSCLC in the US by Stage (Overall and Age Stratified), 2010-2017
- eTable 4. Prevalence of NSCLC in the US, 2010-2016 (Unadjusted)
- eTable 5. Initial Treatment for NSCLC (SEER-18, 2016)
- eTable 6. Initial treatment by stage and by age
- **eTable 7.** Incidence of Stage I NSCLC in patients ≥65 years of age and Medicare Part B CT scan proportions

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

eMethods

Databases

The USCS database consists of population-based cancer registry data collected by the National Cancer Institute's (NCI) SEER program and the Centers for Disease Control and Prevention's (CDC) National Program of Cancer Registries (NPCR). The SEER program collects reportable cancer cases from multiple geographic areas (including states not represented in NPCR) and, based on the number of registries included in the grouping (e.g., SEER-9, SEER-13, SEER-18, and SEER-21), covers up to 34.6% of the US population. NPCR supports central cancer registries in 46 states and several US territories representing >95% of the US population. Collectively, the databases in USCS (i.e., SEER-NPCR) provide information on newly diagnosed cancer across the entire US population. The SEER-18 database, which represents 28% of the US population, was utilized to obtain detailed information that was not available in the SEER-NPCR dataset or other SEER registries (i.e., month-year of diagnosis, staging, staging, survival, and initial treatment).

The most current registry data come from the November 2019 NPCR and SEER submissions, which include cancer cases diagnosed through 2017. The SEER program allows a standard delay of up to 22 months (e.g., cancer cases diagnosed in February 2017 may not be reported to NCI until December 2018). All new cases submitted by November of each year are included in the official data release in April of the following year; in a typical year, there can be a ~0.5- to >2.5-year gap from original diagnosis to data release. In 2020, data release for some measures was delayed from April to June, with some measures not yet released. At the time of this analysis, incidence data were available through 2017, while other data (month-year of diagnosis [used to calculate prevalence], survival month, and initial treatment) were available through 2016. 67

Calculation of Period Survival Estimates

Suppose 5-year survival is to be calculated using data from 2008-2013, consisting of patients with index cancer diagnoses from 2008-2012. Traditional cohort 5-year survival is obtained from only the 2008 cohort and equals the product of conditional probabilities of patients surviving the next year, given that they survived the previous year. In contrast, 5-year period survival is obtained by multiplying the 1-year survival probabilities of the cohort diagnosed in 2012 by each year's most recent conditional (given the preceding year's survival) probability of surviving the next year (e.g. the probability of surviving 2 years given 1-year survival from the cohort diagnosed in 2011).

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Morphology codes

The following morphology codes from the International Classification of Disease for Oncology, 3rd edition (ICD-O-3) were used to identify NSCLC:

	ICD-O-3 codes
Non-small-cell lung cancer	
	8051–8052, 8070-8076, 8078, 8083-8084, 8090, 8094, 8123
Squamous cell carcinoma	
	8015, 8050, 8140-8141, 8143-8145, 8147, 8190, 8201, 8211, 8250-
	8255, 8260, 8290, 8310, 8320, 8323, 8333, 8401, 8440, 8470-8471,
Adenocarcinoma	8480-8481, 8490, 8503, 8507, 8550, 8570-8572, 8574, 8576
	8012-8014, 8021, 8034, 8082
Large cell carcinoma	
	8046, 8003–8004, 8022, 8030, 8031-8033, 8035, 8120, 8200, 8240–
	8241, 8243–8246, 8249, 8430, 8525, 8560, 8562, 8575
Not otherwise specified	
	8002, 8041–8045
Small-cell lung cancer	

Data tables

eTable 1. Incidence of NSCLC in the US by Histology 2010-2017

		SEER-18			SEER-NPCF	1
		N	SEER-18		N	US Population
	Incidence		Population	Incidence		
Overall (2010–2017)						
Lung carcinoma	47.8	366,213	706,307,921	52.5	1,542,070	2,538,185,596
Small-cell	6.1	47,233	706,307,921	7.2	215,522	2,538,185,596
Non-small-cell	40.3	308,192	706,307,921	43.8	1,281,780	2,538,185,596
Squamous cell	11.2	84,928	706,307,921	12.9	376,413	2,538,185,596
Adenocarcinoma	23.0	176,091	706,307,921	23.9	701,768	2,538,185,596
Large cell	0.7	5,432	706,307,921	0.8	23,686	2,538,185,596
NOS	5.5	41,741	706,307,921	6.2	179,870	2,538,185,596
Carcinoma, NOS	1.4	10,788	706,307,921	1.5	44,768	2,538,185,596
Sarcomas	0.1	648	706,307,921	0.1	2,329	2,538,185,596
Other specified types	0.0	333	706,307,921	0	1,266	2,538,185,596
Total	47.9	367,194	706,307,921	52.7	1,545,665	2,538,185,596
Age <65 y (2010–2017)						
Lung carcinoma	15.1	117,365	612,378,397	17.8	510,349	2,174,723,820
Small-cell	2.2	17,081	612,378,397	2.8	80,047	2,174,723,820
Non-small-cell	12.5	97,202	612,378,397	14.6	417,532	2,174,723,820
Squamous cell	2.7	21,832	612,378,397	3.4	100,443	2,174,723,820
Adenocarcinoma	7.6	58,519	612,378,397	8.6	242,945	2,174,723,820
Large cell	0.3	2,106	612,378,397	0.3	9,368	2,174,723,820
NOS	1.9	14,745	612,378,397	2.3	64,764	2,174,723,820
Carcinoma, NOS	0.4	3,082	612,378,397	0.4	12,770	2,174,723,820
Sarcomas	0.0	292	612,378,397	0	1,086	2,174,723,820
Other specified types	0.0	130	612,378,397	0	540	2,174,723,820
Total	15.1	117,787	612,378,397	17.9	511,975	2,174,723,820
Age ≥65 y (2010–2017)						
Lung carcinoma	274.2	248,848	93,929,524	292.5	1,031,721	363,461,776
Small-cell	33.0	30,152	93,929,524	38.1	135,475	363,461,776
Non-small-cell	232.8	210,990	93,929,524	245.4	864,248	363,461,776
Squamous cell	70.0	63,096	93,929,524	78.7	275,970	363,461,776
Adenocarcinoma	129.5	117,572	93,929,524	130	458,823	363,461,776
Large cell	3.7	3,326	93,929,524	4	14,318	363,461,776
NOS	29.7	26,996	93,929,524	32.6	115,106	363,461,776
Carcinoma, NOS	8.5	7,706	93,929,524	9.1	31,998	363,461,776
Sarcomas	0.4	356	93,929,524	0.4	1,243	363,461,776
Other specified types	0.2	203	93,929,524	0.2	726	363,461,776
Total	274.8	249,407	93,929,524	293.0	1,033,690	363,461,776
Men (2010–2017)						
Lung carcinoma	55.4	190,217	348,646,337	61.1	808,689	1,249,021,622
Small-cell	6.6	23,394	348,646,337	7.8	106,050	1,249,021,622
Non-small-cell	47.0	160,784	348,646,337	51.3	677,549	1,249,021,622
Squamous cell	15.6	52,716	348,646,337	17.9	234,332	1,249,021,622
Adenocarcinoma	24.3	83,581	348,646,337	25.4	336,622	1,249,021,622
Large cell	0.9	3,061	348,646,337	1.0	13,503	1,249,021,622
NOS	6.2	21,426	348,646,337	7.0	93,073	1,249,021,622
Carcinoma, NOS	1.8	6,039	348,646,337	1.9	25,090	1,249,021,622

Sarcomas	0.1	383	348,646,337	0.1	1,337	1,249,021,622
Other specified types	0.1	188	348,646,337	0.1	735	1,249,021,622
Total	55.5	190,788	348,646,337	61.2	810,761	1,249,021,622
Women (2010–2017)						
Lung carcinoma	42.1	175,996	357,661,584	46.1	733,381	1,289,163,974
Small-cell	5.6	23,839	357,661,584	6.8	109,472	1,289,163,974
Non-small-cell	35.3	147,408	357,661,584	38.0	604,231	1,289,163,974
Squamous cell	7.8	32,212	357,661,584	9.0	142,081	1,289,163,974
Adenocarcinoma	22.1	92,510	357,661,584	22.9	365,146	1,289,163,974
Large cell	0.6	2,371	357,661,584	0.6	10,183	1,289,163,974
NOS	4.9	20,315	357,661,584	5.5	86,797	1,289,163,974
Carcinoma, NOS	1.1	4,749	357,661,584	1.2	19,678	1,289,163,974
Sarcomas	0.1	265	357,661,584	0.1	992	1,289,163,974
Other specified types	0.0	145	357,661,584	0.0	531	1,289,163,974
Total	42.2	176,406	357,661,584	46.2	734,904	1,289,163,974

Incidence per 100,000 persons, age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130).

NOS, not otherwise specified; NSCLC, non-small-cell lung cancer; US, United States; y, years.

eTable 2. Incidence of NSCLC in the US, 2010-2017

		SEER-	18		SEER-NP(CR
	Incidence	N	SEER 18 Population	Incidence	N	US Population ^a
Overall (2010–2017)	40.3	308,192	706,307,921	43.8	1,281,780	2,538,185,596
2010	43.6	37,903	86,141,302	46.4	155,348	309,326,085
2011	42.7	38,066	86,786,305	45.8	156,713	311,580,009
2012	41.8	38,261	87,413,119	45.0	158,337	313,874,218
2013	40.7	38,327	88,004,080	44.4	159,958	316,057,727
2014	39.9	38,561	88,617,533	43.6	161,258	318,386,421
2015	39.2	38,852	89,232,342	42.9	162,920	320,742,673
2016	38.4	39,002	89,814,929	42.0	163,530	323,071,342
2017	37.5	39,220	90,298,311	40.9	163,716	325,147,121
Age <65 y (2010–2017)	12.5	97,202	612,378,397	14.6	417,532	2,174,723,820
2010	13.5	12,349	75,737,114	15.5	52,453	268,847,303
2011	13.3	12,558	76,128,974	15.2	52,820	270,227,060
2012	12.9	12,303	76,283,517	15.0	52,463	270,738,079
2013	12.6	12,194	76,471,427	14.8	52,354	271,419,209
2014	12.4	12,145	76,676,251	14.5	52,211	272,216,636
2015	12.1	12,078	76,880,727	14.4	52,515	273,074,977
2016	11.8	11,934	77,058,461	14.0	51,921	273,847,358
2017	11.4	11,641	77,141,926	13.5	50,795	274,353,198
Age ≥65 y (2010–2017)	232.8	210,990	93,929,524	245.4	864,248	363,461,776
2010	251.8	25,554	10,404,188	259.9	102,895	40,478,782
2011	245.8	25,508	10,657,331	257.2	103,893	41,352,949
2012	241.3	25,958	11,129,602	252.8	105,874	43,136,139
2013	235.0	26,133	11,532,653	249.0	107,604	44,638,518
2014	230.0	26,416	11,941,282	244.5	109,047	46,169,785
2015	226.1	26,774	12,351,615	240.3	110,405	47,667,696
2016	221.9	27,068	12,756,468	235.8	111,609	49,223,984
2017	217.9	27,579	13,156,385	230	112,921	50,793,923
Men (2010–2017)	47	160,784	348,646,337	51.3	677,549	1,249,021,622
2010	52.6	20,309	42,502,679	56.0	83,809	152,077,018
2011	50.8	20,170	42,818,861	54.9	84,270	153,211,825
2012	49.3	20,178	43,137,519	53.5	84,456	154,396,283
2013	47.5	20,071	43,433,326	52.2	84,902	155,514,347
2014	46.0	19,969	43,744,472	51.0	85,243	156,697,642
2015	45.2	20,153	44,059,074	49.7	85,428	157,910,775
2016	43.6	19,973	44,353,041	48.1	84,970	159,088,102
2017	42.4	19,961	44,597,365	46.5	84,471	160,125,630
Female (2010–2017)	35.3	147,408	357,661,584	38	604,231	1,289,163,974
2010	36.8	17,594	43,638,623	39.1	71,539	157,249,067
2011	36.6	17,896	43,967,444	38.8	72,443	158,368,184
2012	36.1	18,083	44,275,600	38.6	73,881	159,477,935
2013	35.6	18,256	44,570,754	38.4	75,056	160,543,380
2014 2015	35.3	18,592	44,873,061 45,173,268	37.9 37.7	76,015	161,688,779
	34.6	18,699	45,173,268 45,461,888	37.7	77,492 78,560	162,831,898
2016 2017	34.4 33.8	19,029 19,259	45,461,888 45,700,946	37.3 36.6	78,360	163,983,240 165,021,491
Incidence ner 100 000 nerson		•				

Incidence per 100,000 persons, age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130). NSCLC, non-small-cell lung cancer; US, United States; y, years. ^aBased on SEER-NCPR

eTable 3. Incidence of NSCLC in the US by Stage (Overall and Age Stratified), 2010-2017

	SEER-18			SEER-18 Incide	nce project	ed to US population
	Incidence	N	SEER 18	Incidence	N	US Population ^a
			Population			
Stage I						
2010	9.8	8,439	86,141,302	10.77	33313	309326085
2011	9.9	8,652	86,786,305	10.91	33978	311580009
2012	9.7	8,768	87,413,119	10.96	34401	313874218
2013	9.9	9,152	88,004,080	11.38	35962	316057727
2014	9.8	9,347	88,617,533	11.51	36631	318386421
2015	10.2	10,013	89,232,342	12.22	39192	320742673
2016	10.3	10,386	89,814,929	12.61	40746	323071342
2017	10.5	10,946	90,298,311	13.17	42838	325147121
Stage II						
2010	3.9	3,333	86,141,302	4.25	13149	309326085
2011	3.9	3,432	86,786,305	4.33	13504	311580009
2012	3.7	3,324	87,413,119	4.16	13050	313874218
2013	3.7	3,413	88,004,080	4.21	13307	316057727
2014	3.5	3,318	88,617,533	4.1	13050	318386421
2015	3.4	3,312	89,232,342	4.05	12980	320742673
2016	3.2	3,262	89,814,929	3.96	12807	323071342
2017	3.0	3,121	90,298,311	3.75	12207	325147121
Stage IIIA						
2010	5.3	4,657	86,141,302	5.91	18268	309326085
2011	5.4	4,765	86,786,305	5.99	18673	311580009
2012	5.2	4,804	87,413,119	5.98	18781	313874218
2013	5.0	4,678	88,004,080	5.79	18313	316057727
2014	5.0	4,831	88,617,533	5.94	18899	318386421
2015	4.8	4,739	89,232,342	5.77	18494	320742673
2016	4.7	4,830	89,814,929	5.84	18863	323071342
2017	4.7	4,953	90,298,311	5.93	19273	325147121
Stage IIIB						
2010	2.3	2,022	86,141,302	2.54	7849	309326085
2011	2.3	2,121	86,786,305	2.64	8216	311580009
2012	2.3	2,138	87,413,119	2.64	8299	313874218
2013	2.1	2,041	88,004,080	2.51	7943	316057727
2014	2.2	2,111	88,617,533	2.56	8162	318386421
2015	2.1	2,084	89,232,342	2.51	8057	320742673
2016	2.1	2,142	89,814,929	2.56	8261	323071342
2017	2.0	2,077	90,298,311	2.49	8091	325147121
Stage IV						
2010	19.8	17,370	86,141,302	21.73	67203	309326085
2011	18.8	16,947	86,786,305	21.03	65530	311580009
2012	18.7	17,329	87,413,119	21.32	66907	313874218
2013	18.2	17,269	88,004,080	21	66383	316057727
2014	17.8	17,338	88,617,533	21	66873	318386421
2015	17.2	17,212	89,232,342	20.53	65852	320742673
2016	16.7	17,043	89,814,929	20.22	65313	323071342
2017	15.8	16,622	90,298,311	19.59	63703	325147121
Age <65						

Chanal				1		
Stage I	2.6	2.262	75 727 444	2.22	0000	260047202
2010	2.6	2,363	75,737,114	3.32	8920	268847303
2011	2.4	2,319	76,128,974	3.25	8789	270227060
2012	2.5	2,361	76,283,517	3.29	8909	270738079
2013	2.4	2,351	76,471,427	3.27	8884	271419209
2014	2.4	2,382	76,676,251	3.3	8971	272216636
2015	2.7	2,678	76,880,727	3.69	10066	273074977
2016	2.6	2,675	77,058,461	3.67	10061	273847358
2017	2.6	2,723	77,141,926	3.72	10211	274353198
Stage II						
2010	1.1	976	75,737,114	1.38	3716	268847303
2011	1.1	1,042	76,128,974	1.47	3975	270227060
2012	1.0	952	76,283,517	1.34	3623	270738079
2013	1.0	980	76,471,427	1.37	3705	271419209
2014	0.9	925	76,676,251	1.28	3484	272216636
2015	0.9	880	76,880,727	1.21	3310	273074977
2016	0.9	892	77,058,461	1.23	3381	273847358
2017	0.8	850	77,141,926	1.17	3202	274353198
Stage IIIA						
2010	1.6	1,498	75,737,114	2.11	5678	268847303
2011	1.7	1,580	76,128,974	2.22	6000	270227060
2012	1.6	1,532	76,283,517	2.14	5801	270738079
2013	1.5	1,473	76,471,427	2.05	5576	271419209
2014	1.5	1,528	76,676,251	2.12	5778	272216636
2015	1.5	1,462	76,880,727	2.02	5517	273074977
2016	1.5	1,480	77,058,461	2.04	5574	273847358
2017	1.4	1,486	77,141,926	2.04	5600	274353198
Stage IIIB						
2010	0.9	794	75,737,114	1.11	2994	268847303
2011	0.9	824	76,128,974	1.15	3116	270227060
2012	0.8	781	76,283,517	1.09	2953	270738079
2013	0.8	785	76,471,427	1.09	2958	271419209
2014	0.8	784	76,676,251	1.08	2945	272216636
2015	0.8	753	76,880,727	1.03	2825	273074977
2016	0.8	766	77,058,461	1.06	2890	273847358
2017	0.7	704	77,141,926	0.97	2668	274353198
Stage IV						
2010	6.8	6,224	75,737,114	8.65	23247	268847303
2011	6.7	6,240	76,128,974	8.63	23334	270227060
2012	6.6	6,247	76,283,517	8.63	23377	270738079
2013	6.5	6,181	76,471,427	8.45	22944	271419209
2014	6.3	6,103	76,676,251	8.35	22717	272216636
2015	6.0	5,955	76,880,727	8.1	22113	273074977
2016	5.8	5,800	77,058,461	7.84	21456	273847358
2017	5.4	5,480	77,141,926	7.39	20267	274353198
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Age ≥65							
Stage I							
2	2010	60.2	6,076	10,404,188	60.26	24394	40478782
	2011	61.2	6,333	10,657,331	60.91	25189	41352949
2	2012	59.9	6,407	11,129,602	59.1	25492	43136139

2013	61.5	6,801	11,532,653	60.66	27078	44638518
2014	60.8	6,965	11,941,282	59.91	27660	46169785
2015	62.2	7,335	12,351,615	61.1	29126	47667696
2016	63.4	7,711	12,756,468	62.34	30686	49223984
2017	65.2	8,223	13,156,385	64.23	32627	50793923
Stage II						
2010	23.3	2,357	10,404,188	23.3	9433	40478782
2011	23.1	2,390	10,657,331	23.04	9529	41352949
2012	22.2	2,372	11,129,602	21.86	9427	43136139
2013	22.0	2,433	11,532,653	21.51	9602	44638518
2014	20.9	2,393	11,941,282	20.72	9566	46169785
2015	20.7	2,432	12,351,615	20.29	9670	47667696
2016	19.6	2,370	12,756,468	19.15	9426	49223984
2017	18.0	2,271	13,156,385	17.73	9005	50793923
Stage IIIA						
2010	31.1	3,159	10,404,188	31.1	12590	40478782
2011	30.9	3,185	10,657,331	30.65	12673	41352949
2012	30.4	3,272	11,129,602	30.09	12981	43136139
2013	28.9	3,205	11,532,653	28.53	12737	44638518
2014	28.9	3,303	11,941,282	28.42	13122	46169785
2015	27.6	3,277	12,351,615	27.22	12977	47667696
2016	27.4	3,350	12,756,468	27	13290	49223984
2017	27.3	3,467	13,156,385	26.92	13672	50793923
Stage IIIB						
2010	12.1	1,228	10,404,188	11.99	4855	40478782
2011	12.5	1,297	10,657,331	12.33	5099	41352949
2012	12.6	1,357	11,129,602	12.39	5346	43136139
2013	11.2	1,256	11,532,653	11.17	4985	44638518
2014	11.6	1,327	11,941,282	11.3	5217	46169785
2015	11.2	1,331	12,351,615	10.97	5231	47667696
2016	11.3	1,376	12,756,468	10.91	5371	49223984
2017	10.8	1,373	13,156,385	10.68	5423	50793923
Stage IV						
2010	109.5	11,146	10,404,188	108.59	43955	40478782
2011	102.7	10,707	10,657,331	102.04	42196	41352949
2012	102.5	11,082	11,129,602	100.91	43530	43136139
2013	99.3	11,088	11,532,653	97.31	43438	44638518
2014	97.4	11,235	11,941,282	95.64	44156	46169785
2015	94.6	11,257	12,351,615	91.76	43739	47667696
2016	91.8	11,243	12,756,468	89.1	43857	49223984
2017	87.7	11,142	13,156,385	85.51	43436	50793923

Rates are per 100,000. NSCLC, non-small-cell lung cancer; US, United States; y, years.

^aBased on SEER-NCPR

eTable 4. Prevalence of NSCLC in the US, 2010-2016 (Unadjusted)

		SEER-	18	SEER-18 p	revalence p	rojected to US
				-	population	=
	Prevalence	N	SEER-18 Population	Prevalence	N	US Population ^a
Overall (2010–2016)						
2010	162.0	139,574	86,141,302	175.34	542,367	309,326,085
2011	165.78	143,876	86,786,305	179.15	558,209	311,580,009
2012	169.80	148,426	87,413,119	183.19	574,995	313,874,218
2013	173.37	152,572	88,004,080	186.58	589,710	316,057,727
2014	177.00	156,849	88,617,533	190.22	605,649	318,386,421
2015	181.12	161,620	89,232,342	194.12	622,637	320,742,673
2016	185.18	166,320	89,814,929	198.25	640,488	323,071,342
Age <65 y (2010–2016)		•			·	
2010	73.27	55,491	75,737,114	77.50	208,363	268,847,303
2011	75.27	57,300	76,128,974	79.60	215,091	270,227,060
2012	77.02	58,755	76,283,517	81.36	220,282	270,738,079
2013	78.71	60,194	76,471,427	82.94	225,129	271,419,209
2014	80.39	61,641	76,676,251	84.56	230,174	272,216,636
2015	82.25	63,233	76,880,727	86.33	235,734	273,074,977
2016	83.85	64,613	77,058,461	87.86	240,612	273,847,358
Age ≥65 y (2010–2016)		· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·	, ,
2010	808.16	84,083	10,404,188	825.13	334,004	40,478,782
2011	812.36	86,576	10,657,331	829.73	343,118	41,352,949
2012	805.70	89,671	11,129,602	822.31	354,714	43,136,139
2013	801.01	92,378	11,532,653	816.74	364,582	44,638,518
2014	797.30	95,208	11,941,282	813.25	375,476	46,169,785
2015	796.55	98,387	12,351,615	811.67	386,903	47,667,696
2016	797.30	101,707	12,756,468	812.36	399,876	49,223,984
Men (2010–2016)		·				
2010	160.58	68,249	42,502,679	174.06	264,711	152,077,018
2011	162.73	69,681	42,818,861	176.13	269,858	153,211,825
2012	165.19	71,261	43,137,519	178.47	275,558	154,396,283
2013	166.76	72,429	43,433,326	179.63	279,358	155,514,347
2014	168.48	73,702	43,744,472	181.27	284,043	156,697,642
2015	171.35	75,495	44,059,074	183.76	290,180	157,910,775
2016	173.46	76,934	44,353,041	185.81	295,597	159,088,102
Women (2010–2016)						
2010	163.44	71,325	43,638,623	176.57	277,657	157,249,067
2011	168.75	74,195	43,967,444	182.08	288,351	158,368,184
2012	174.28	77,165	44,275,600	187.76	299,438	159,477,935
2013	179.81	80,143	44,570,754	193.31	310,353	160,543,380
2014	185.29	83,147	44,873,061	198.90	321,607	161,688,779
2015	190.65	86,125	45,173,268	204.17	332,457	162,831,898
2016	196.62	89,386	45,461,888	210.32	344,890	163,983,240

Rates are per 100,000. NSCLC, non-small-cell lung cancer; US, United States; y, years.

^aBased on SEER-NCPR

eTable 5. Initial Treatment for NSCLC (SEER-18, 2016)

				Any Treatment			Single Tr	eatment		Multiple T	reatments
	N	No	Surgery	Chemotherapy	Radiation	Only 1	Surgery Only	Chemotherap	Radiation	More than 1	Chemotherapy
		Treatment				Treatment		y Only	Only	Treatment	and Radiation
Overall											
2010	37,878	8,971 (23.7%)	10,656 (28.1%)	15,805 (41.7%)	14,351 (37.9%)	18,073 (47.7%)	7,525 (19.9%)	5,310 (14.0%)	5,238 (13.8%)	10,834 (28.6%)	8,774 (23.2%)
2011	38,036	8,935 (23.5%)	10,642 (28.0%)	15,803 (41.5%)	14,483 (38.1%)	18,305 (48.1%)	7,551 (19.9%)	5,354 (14.1%)	5,400 (14.2%)	10,796 (28.4%)	8,736 (23.0%)
2012	38,227	9,140 (23.9%)	10,339 (27.0%)	15,813 (41.4%)	14,812 (38.7%)	18,199 (47.6%)	7,333 (19.2%)	5,269 (13.8%)	5,597 (14.6%)	10,888 (28.5%)	8,871 (23.2%)
2013	38,280	8,697 (22.7%)	10,470 (27.4%)	16,039 (41.9%)	15,003 (39.2%)	18,603 (48.6%)	7,444 (19.4%)	5,383 (14.1%)	5,776 (15.1%)	10,980 (28.7%)	8,903 (23.3%)
2014	38,487	8,824 (22.9%)	10,125 (26.3%)	16,317 (42.4%)	15,321 (39.8%)	18,499 (48.1%)	7,159 (18.6%)	5,443 (14.1%)	5,897 (15.3%)	11,164 (29.0%)	9,134 (23.7%)
2015	38,719	8,703 (22.5%)	10,259 (26.5%)	16,128 (41.7%)	15,409 (39.8%)	19,119 (49.4%)	7,370 (19.0%)	5,506 (14.2%)	6,243 (16.1%)	10,897 (28.1%)	8,891 (23.0%)
2016	38,692	8,792 (22.7%)	10,584 (27.4%)	15,671 (40.5%)	15,219 (39.3%)	19,163 (49.5%)	7,636 (19.7%)	5,173 (13.4%)	6,354 (16.4%)	10,737 (27.7%)	8,626 (22.3%)
Age											
<65 y											
2010	12,347	1,960 (15.9%)	3,762 (30.5%)	6,633 (53.7%)	5,466 (44.3%)	5,473 (44.3%)	2,340 (19.0%)	1,816 (14.7%)	1,317 (10.7%)	4,914 (39.8%)	4,052 (32.8%)
2011	12,549	2,076 (16.5%)	3,674 (29.3%)	6,820 (54.3%)	5,499 (43.8%)	5,485 (43.7%)	2,256 (18.0%)	1,940 (15.5%)	1,289 (10.3%)	4,988 (39.7%)	4,102 (32.7%)
2012	12,288	2,101 (17.1%)	3,572 (29.1%)	6,580 (53.5%)	5,353 (43.6%)	5,381 (43.8%)	2,193 (17.8%)	1,879 (15.3%)	1,309 (10.7%)	4,806 (39.1%)	3,939 (32.1%)
2013	12,177	1,957 (16.1%)	3,532 (29.0%)	6,665 (54.7%)	5,352 (44.0%)	5,341 (43.9%)	2,180 (17.9%)	1,884 (15.5%)	1,277 (10.5%)	4,879 (40.1%)	3,977 (32.7%)
2014	12,121	1,969 (16.2%)	3,362 (27.7%)	6,722 (55.5%)	5,388 (44.5%)	5,296 (43.7%)	2,112 (17.4%)	1,951 (16.1%)	1,233 (10.2%)	4,856 (40.1%)	4,070 (33.6%)
2015	12,046	1,917 (15.9%)	3,538 (29.4%)	6,429 (53.4%)	5,191 (43.1%)	5,509 (45.7%)	2,340 (19.4%)	1,890 (15.7%)	1,279 (10.6%)	4,620 (38.4%)	3,831 (31.8%)
2016	11,859	1,975 (16.7%)	3,629 (30.6%)	6,132 (51.7%)	4,988 (42.1%)	5,409 (45.6%)	2,375 (20.0%)	1,736 (14.6%)	1,298 (10.9%)	4,475 (37.7%)	3,611 (30.4%)
Age											
≥65 y											
2010	25,531	7,011 (27.5%)	6,894 (27.0%)	9,172 (35.9%)	8,885 (34.8%)	12,600 (49.4%)	5,185 (20.3%)	3,494 (13.7%)	3,921 (15.4%)	5,920 (23.2%)	4,722 (18.5%)
2011	25,487	6,859 (26.9%)	6,968 (27.3%)	8,983 (35.2%)	8,984 (35.2%)	12,820 (50.3%)	5,295 (20.8%)	3,414 (13.4%)	4,111 (16.1%)	5,808 (22.8%)	4,634 (18.2%)
2012	25,939	7,039 (27.1%)	6,767 (26.1%)	9,233 (35.6%)	9,459 (36.5%)	12,818 (49.4%)	5,140 (19.8%)	3,390 (13.1%)	4,288 (16.5%)	6,082 (23.4%)	4,932 (19.0%)
2013	26,103	6,740 (25.8%)	6,938 (26.6%)	9,374 (35.9%)	9,651 (37.0%)	13,262 (50.8%)	5,264 (20.2%)	3,499 (13.4%)	4,499 (17.2%)	6,101 (23.4%)	4,926 (18.9%)
2014	26,366	6,855 (26.0%)	6,763 (25.7%)	9,595 (36.4%)	9,933 (37.7%)	13,203 (50.1%)	5,047 (19.1%)	3,492 (13.2%)	4,664 (17.7%)	6,308 (23.9%)	5,064 (19.2%)
2015	26,673	6,786 (25.4%)	6,721 (25.2%)	9,699 (36.4%)	10,218 (38.3%)	13,610 (51.0%)	5,030 (18.9%)	3,616 (13.6%)	4,964 (18.6%)	6,277 (23.5%)	5,060 (19.0%)
2016	26,833	6,817 (25.4%)	6,955 (25.9%)	9,539 (35.5%)	10,231 (38.1%)	13,754 (51.3%)	5,261 (19.6%)	3,437 (12.8%)	5,056 (18.8%)	6,262 (23.3%)	5,015 (18.7%)
Men											
2010	20,293	4,960 (24.4%)	5,178 (25.5%)	8,739 (43.1%)	7,985 (39.3%)	9,329 (46.0%)	3,547 (17.5%)	2,921 (14.4%)	2,861 (14.1%)	6,004 (29.6%)	4,938 (24.3%)
2011	20,147	4,846 (24.1%)	5,084 (25.2%)	8,676 (43.1%)	8,091 (40.2%)	9,326 (46.3%)	3,461 (17.2%)	2,879 (14.3%)	2,986 (14.8%)	5,975 (29.7%)	4,927 (24.5%)
2012	20,156	5,009 (24.9%)	4,937 (24.5%)	8,592 (42.6%)	8,136 (40.4%)	9,156 (45.4%)	3,356 (16.7%)	2,799 (13.9%)	3,001 (14.9%)	5,991 (29.7%)	4,937 (24.5%)
2013	20,046	4,739 (23.6%)	4,912 (24.5%)	8,688 (43.3%)	8,179 (40.8%)	9,348 (46.6%)	3,368 (16.8%)	2,896 (14.4%)	3,084 (15.4%)	5,959 (29.7%)	4,928 (24.6%)
2014	19,936	4,618 (23.2%)	4,686 (23.5%)	8,852 (44.4%)	8,345 (41.9%)	9,233 (46.3%)	3,205 (16.1%)	2,910 (14.6%)	3,118 (15.6%)	6,085 (30.5%)	5,084 (25.5%)
2015	20,081	4,750 (23.7%)	4,750 (23.7%)	8,688 (43.3%)	8,256 (41.1%)	9,442 (47.0%)	3,264 (16.3%)	2,940 (14.6%)	3,238 (16.1%)	5,889 (29.3%)	4,877 (24.3%)
2016	19,790	4,702 (23.8%)	4,784 (24.2%)	8,336 (42.1%)	8,130 (41.1%)	9,356 (47.3%)	3,297 (16.7%)	2,723 (13.8%)	3,336 (16.9%)	5,732 (29.0%)	4,675 (23.6%)
Women											,

2010	17,585	4,011 (22.8%)	5,478 (31.2%)	7,066 (40.2%)	6,366 (36.2%)	8,744 (49.7%)	3,978 (22.6%)	2,389 (13.6%)	2,377 (13.5%)	4,830 (27.5%)	3,836 (21.8%)
2011	17,889	4,089 (22.9%)	5,558 (31.1%)	7,127 (39.8%)	6,392 (35.7%)	8,979 (50.2%)	4,090 (22.9%)	2,475 (13.8%)	2,414 (13.5%)	4,821 (26.9%)	3,809 (21.3%)
2012	18,071	4,131 (22.9%)	5,402 (29.9%)	7,221 (40.0%)	6,676 (36.9%)	9,043 (50.0%)	3,977 (22.0%)	2,470 (13.7%)	2,596 (14.4%)	4,897 (27.1%)	3,934 (21.8%)
2013	18,234	3,958 (21.7%)	5,558 (30.5%)	7,351 (40.3%)	6,824 (37.4%)	9,255 (50.8%)	4,076 (22.4%)	2,487 (13.6%)	2,692 (14.8%)	5,021 (27.5%)	3,975 (21.8%)
2014	18,551	4,206 (22.7%)	5,439 (29.3%)	7,465 (40.2%)	6,976 (37.6%)	9,266 (49.9%)	3,954 (21.3%)	2,533 (13.7%)	2,779 (15.0%)	5,079 (27.4%)	4,050 (21.8%)
2015	18,638	3,953 (21.2%)	5,509 (29.6%)	7,440 (39.9%)	7,153 (38.4%)	9,677 (51.9%)	4,106 (22.0%)	2,566 (13.8%)	3,005 (16.1%)	5,008 (26.9%)	4,014 (21.5%)
2016	18,902	4,090 (21.6%)	5,800 (30.7%)	7,335 (38.8%)	7,089 (37.5%)	9,807 (51.9%)	4,339 (23.0%)	2,450 (13.0%)	3,018 (16.0%)	5,005 (26.5%)	3,951 (20.9%)

Treatment data presented as n (%=n/N).

eTable 6. Initial treatment by stage and by age

							Single Tro	eatment		Multiple T	reatments
	N	No	Surgery	Chemotherapy	Radiation	Only 1	Surgery Only	Chemotherap	Radiation	More than 1	Chemotherapy
		Treatment				Treatment		y Only	Only	Treatment	and Radiation
Stage I											
2010	8,428	701 (8.3%)	6,125 (72.7%)	813 (9.6%)	1,664 (19.7%)	6,932 (82.2%)	5,567 (66.1%)	128 (1.5%)	1,237 (14.7%)	795 (9.4%)	317 (3.8%)
2011	8,641	741 (8.6%)	6,102 (70.6%)	775 (9.0%)	1,886 (21.8%)	7,113 (82.3%)	5,550 (64.2%)	120 (1.4%)	1,443 (16.7%)	787 (9.1%)	311 (3.6%)
2012	8,756	765 (8.7%)	6,004 (68.6%)	683 (7.8%)	2,083 (23.8%)	7,275 (83.1%)	5,521 (63.1%)	109 (1.2%)	1,645 (18.8%)	716 (8.2%)	296 (3.4%)
2013	9,144	771 (8.4%)	6,251 (68.4%)	739 (8.1%)	2,191 (24.0%)	7,630 (83.4%)	5,716 (62.5%)	114 (1.2%)	1,800 (19.7%)	743 (8.1%)	273 (3.0%)
2014	9,324	790 (8.5%)	6,075 (65.2%)	699 (7.5%)	2,526 (27.1%)	7,823 (83.9%)	5,605 (60.1%)	99 (1.1%)	2,119 (22.7%)	711 (7.6%)	296 (3.2%)
2015	9,974	800 (8.0%)	6,343 (63.6%)	762 (7.6%)	2,881 (28.9%)	8,422 (84.4%)	5,834 (58.5%)	120 (1.2%)	2,468 (24.7%)	752 (7.5%)	303 (3.0%)
2016	10,306	823 (8.0%)	6,472 (62.8%)	736 (7.1%)	3,016 (29.3%)	8,781 (85.2%)	6,012 (58.3%)	123 (1.2%)	2,646 (25.7%)	702 (6.8%)	281 (2.7%)
Stage I,											
<65 y											
2010	2,361	100 (4.2%)	1,992 (84.4%)	287 (12.2%)	305 (12.9%)	1,976 (83.7%)	1,768 (74.9%)	26 (1.1%)	182 (7.7%)	285 (12.1%)	99 (4.2%)
2011	2,313	122 (5.3%)	1,930 (83.4%)	283 (12.2%)	289 (12.5%)	1,912 (82.7%)	1,716 (74.2%)	31 (1.3%)	165 (7.1%)	279 (12.1%)	97 (4.2%)
2012	2,357	137 (5.8%)	1,916 (81.3%)	240 (10.2%)	340 (14.4%)	1,972 (83.7%)	1,731 (73.4%)	29 (1.2%)	212 (9.0%)	248 (10.5%)	91 (3.9%)
2013	2,347	138 (5.9%)	1,900 (81.0%)	282 (12.0%)	333 (14.2%)	1,930 (82.2%)	1,683 (71.7%)	31 (1.3%)	216 (9.2%)	279 (11.9%)	89 (3.8%)
2014	2,377	147 (6.2%)	1,879 (79.0%)	226 (9.5%)	383 (16.1%)	2,000 (84.1%)	1,706 (71.8%)	26 (1.1%)	268 (11.3%)	230 (9.7%)	85 (3.6%)
2015	2,662	142 (5.3%)	2,109 (79.2%)	273 (10.3%)	443 (16.6%)	2,249 (84.5%)	1,900 (71.4%)	34 (1.3%)	315 (11.8%)	271 (10.2%)	96 (3.6%)
2016	2,665	159 (6.0%)	2,080 (78.0%)	256 (9.6%)	438 (16.4%)	2,253 (84.5%)	1,884 (70.7%)	27 (1.0%)	342 (12.8%)	253 (9.5%)	72 (2.7%)
Stage I,											
≥65 y											
2010	6,067	601 (9.9%)	4,133 (68.1%)	526 (8.7%)	1,359 (22.4%)	4,956 (81.7%)	3,799 (62.6%)	102 (1.7%)	1,055 (17.4%)	510 (8.4%)	218 (3.6%)
2011	6,328	619 (9.8%)	4,172 (65.9%)	492 (7.8%)	1,597 (25.2%)	5,201 (82.2%)	3,834 (60.6%)	89 (1.4%)	1,278 (20.2%)	508 (8.0%)	214 (3.4%)
2012	6,399	628 (9.8%)	4,088 (63.9%)	443 (6.9%)	1,743 (27.2%)	5,303 (82.9%)	3,790 (59.2%)	80 (1.3%)	1,433 (22.4%)	468 (7.3%)	205 (3.2%)
2013	6,797	633 (9.3%)	4,351 (64.0%)	457 (6.7%)	1,858 (27.3%)	5,700 (83.9%)	4,033 (59.3%)	83 (1.2%)	1,584 (23.3%)	464 (6.8%)	184 (2.7%)
2014	6,947	643 (9.3%)	4,196 (60.4%)	473 (6.8%)	2,143 (30.8%)	5,823 (83.8%)	3,899 (56.1%)	73 (1.1%)	1,851 (26.6%)	481 (6.9%)	211 (3.0%)
2015	7,312	658 (9.0%)	4,234 (57.9%)	489 (6.7%)	2,438 (33.3%)	6,173 (84.4%)	3,934 (53.8%)	86 (1.2%)	2,153 (29.4%)	481 (6.6%)	207 (2.8%)
2016	7,641	664 (8.7%)	4,392 (57.5%)	480 (6.3%)	2,578 (33.7%)	6,528 (85.4%)	4,128 (54.0%)	96 (1.3%)	2,304 (30.2%)	449 (5.9%)	209 (2.7%)
Stage II											
2010	3,331	440 (13.2%)	2,044 (61.4%)	1,373 (41.2%)	1,016 (30.5%)	1,564 (47.0%)	1,093 (32.8%)	124 (3.7%)	347 (10.4%)	1,327 (39.8%)	591 (17.7%)
2011	3,428	436 (12.7%)	2,132 (62.2%)	1,435 (41.9%)	1,011 (29.5%)	1,624 (47.4%)	1,157 (33.8%)	143 (4.2%)	324 (9.5%)	1,368 (39.9%)	611 (17.8%)
2012	3,325	419 (12.6%)	1,977 (59.5%)	1,421 (42.7%)	1,045 (31.4%)	1,553 (46.7%)	1,027 (30.9%)	134 (4.0%)	392 (11.8%)	1,353 (40.7%)	587 (17.7%)
2013	3,406	442 (13.0%)	1,965 (57.7%)	1,466 (43.0%)	1,108 (32.5%)	1,560 (45.8%)	1,010 (29.7%)	135 (4.0%)	415 (12.2%)	1,404 (41.2%)	620 (18.2%)
2014	3,314	453 (13.7%)	1,891 (57.1%)	1,491 (45.0%)	1,084 (32.7%)	1,429 (43.1%)	915 (27.6%)	109 (3.3%)	405 (12.2%)	1,432 (43.2%)	629 (19.0%)
2015	3,298	400 (12.1%)	1,815 (55.0%)	1,474 (44.7%)	1,124 (34.1%)	1,521 (46.1%)	900 (27.3%)	144 (4.4%)	477 (14.5%)	1,377 (41.8%)	600 (18.2%)
2016	3,238	396 (12.2%)	1,822 (56.3%)	1,550 (47.9%)	1,080 (33.4%)	1,362 (42.1%)	818 (25.3%)	110 (3.4%)	434 (13.4%)	1,480 (45.7%)	606 (18.7%)

Stage II,											
<65 y											
2010	977	64 (6.6%)	740 (75.7%)	535 (54.8%)	268 (27.4%)	388 (39.7%)	325 (33.3%)	27 (2.8%)	36 (3.7%)	525 (53.7%)	215 (22.0%)
2011	1,042	73 (7.0%)	757 (72.6%)	578 (55.5%)	316 (30.3%)	397 (38.1%)	320 (30.7%)	30 (2.9%)	47 (4.5%)	572 (54.9%)	245 (23.5%)
2012	953	68 (7.1%)	689 (72.3%)	559 (58.7%)	258 (27.1%)	344 (36.1%)	258 (27.1%)	35 (3.7%)	51 (5.4%)	541 (56.8%)	190 (19.9%)
2013	975	79 (8.1%)	701 (71.9%)	554 (56.8%)	255 (26.2%)	357 (36.6%)	271 (27.8%)	36 (3.7%)	50 (5.1%)	539 (55.3%)	184 (18.9%)
2014	925	79 (8.5%)	662 (71.6%)	556 (60.1%)	259 (28.0%)	307 (33.2%)	233 (25.2%)	29 (3.1%)	45 (4.9%)	539 (58.3%)	202 (21.8%)
2015	883	65 (7.4%)	614 (69.5%)	506 (57.3%)	228 (25.8%)	341 (38.6%)	257 (29.1%)	36 (4.1%)	48 (5.4%)	477 (54.0%)	173 (19.6%)
2016	885	64 (7.2%)	646 (73.0%)	525 (59.3%)	216 (24.4%)	312 (35.3%)	238 (26.9%)	29 (3.3%)	45 (5.1%)	509 (57.5%)	158 (17.9%)
Stage II,											
≥65 y											
2010	2,354	376 (16.0%)	1,304 (55.4%)	838 (35.6%)	748 (31.8%)	1,176 (50.0%)	768 (32.6%)	97 (4.1%)	311 (13.2%)	802 (34.1%)	376 (16.0%)
2011	2,386	363 (15.2%)	1,375 (57.6%)	857 (35.9%)	695 (29.1%)	1,227 (51.4%)	837 (35.1%)	113 (4.7%)	277 (11.6%)	796 (33.4%)	366 (15.3%)
2012	2,372	351 (14.8%)	1,288 (54.3%)	862 (36.3%)	787 (33.2%)	1,209 (51.0%)	769 (32.4%)	99 (4.2%)	341 (14.4%)	812 (34.2%)	397 (16.7%)
2013	2,431	363 (14.9%)	1,264 (52.0%)	912 (37.5%)	853 (35.1%)	1,203 (49.5%)	739 (30.4%)	99 (4.1%)	365 (15.0%)	865 (35.6%)	436 (17.9%)
2014	2,389	374 (15.7%)	1,229 (51.4%)	935 (39.1%)	825 (34.5%)	1,122 (47.0%)	682 (28.5%)	80 (3.3%)	360 (15.1%)	893 (37.4%)	427 (17.9%)
2015	2,415	335 (13.9%)	1,201 (49.7%)	968 (40.1%)	896 (37.1%)	1,180 (48.9%)	643 (26.6%)	108 (4.5%)	429 (17.8%)	900 (37.3%)	427 (17.7%)
2016	2,353	332 (14.1%)	1,176 (50.0%)	1,025 (43.6%)	864 (36.7%)	1,050 (44.6%)	580 (24.6%)	81 (3.4%)	389 (16.5%)	971 (41.3%)	448 (19.0%)
Stage IIIA											
2010	4,656	783 (16.8%)	1,476 (31.7%)	2,879 (61.8%)	2,548 (54.7%)	1,355 (29.1%)	478 (10.3%)	419 (9.0%)	458 (9.8%)	2,518 (54.1%)	2,032 (43.6%)
2011	4,759	787 (16.5%)	1,422 (29.9%)	2,969 (62.4%)	2,661 (55.9%)	1,364 (28.7%)	450 (9.5%)	422 (8.9%)	492 (10.3%)	2,608 (54.8%)	2,108 (44.3%)
2012	4,793	814 (17.0%)	1,427 (29.8%)	2,973 (62.0%)	2,695 (56.2%)	1,352 (28.2%)	460 (9.6%)	394 (8.2%)	498 (10.4%)	2,627 (54.8%)	2,149 (44.8%)
2013	4,676	808 (17.3%)	1,355 (29.0%)	2,964 (63.4%)	2,643 (56.5%)	1,252 (26.8%)	383 (8.2%)	396 (8.5%)	473 (10.1%)	2,616 (55.9%)	2,122 (45.4%)
2014	4,825	824 (17.1%)	1,324 (27.4%)	3,148 (65.2%)	2,796 (57.9%)	1,215 (25.2%)	342 (7.1%)	404 (8.4%)	469 (9.7%)	2,786 (57.7%)	2,285 (47.4%)
2015	4,726	770 (16.3%)	1,325 (28.0%)	3,076 (65.1%)	2,770 (58.6%)	1,216 (25.7%)	381 (8.1%)	379 (8.0%)	456 (9.6%)	2,740 (58.0%)	2,271 (48.1%)
2016	4,806	806 (16.8%)	1,394 (29.0%)	3,066 (63.8%)	2,755 (57.3%)	1,245 (25.9%)	426 (8.9%)	346 (7.2%)	473 (9.8%)	2,755 (57.3%)	2,247 (46.8%)
Stage IIIA,											
<65 y											
2010	1,498	151 (10.1%)	591 (39.5%)	1,124 (75.0%)	925 (61.7%)	315 (21.0%)	125 (8.3%)	112 (7.5%)	78 (5.2%)	1,032 (68.9%)	827 (55.2%)
2011	1,578	161 (10.2%)	566 (35.9%)	1,214 (76.9%)	988 (62.6%)	308 (19.5%)	98 (6.2%)	127 (8.0%)	83 (5.3%)	1,109 (70.3%)	883 (56.0%)
2012	1,526	172 (11.3%)	567 (37.2%)	1,155 (75.7%)	952 (62.4%)	293 (19.2%)	108 (7.1%)	111 (7.3%)	74 (4.8%)	1,061 (69.5%)	861 (56.4%)
2013	1,477	160 (10.8%)	531 (36.0%)	1,126 (76.2%)	886 (60.0%)	302 (20.4%)	111 (7.5%)	121 (8.2%)	70 (4.7%)	1,015 (68.7%)	806 (54.6%)
2014	1,528	167 (10.9%)	462 (30.2%)	1,209 (79.1%)	996 (65.2%)	275 (18.0%)	82 (5.4%)	130 (8.5%)	63 (4.1%)	1,086 (71.1%)	926 (60.6%)
2015	1,460	152 (10.4%)	492 (33.7%)	1,123 (76.9%)	942 (64.5%)	266 (18.2%)	106 (7.3%)	97 (6.6%)	63 (4.3%)	1,042 (71.4%)	863 (59.1%)
2016	1,474	159 (10.8%)	540 (36.6%)	1,110 (75.3%)	900 (61.1%)	294 (19.9%)	126 (8.5%)	99 (6.7%)	69 (4.7%)	1,021 (69.3%)	821 (55.7%)
Stage IIIA,											
≥65 y		(:	/	/			/	/:			
2010	3,158	632 (20.0%)	885 (28.0%)	1,755 (55.6%)	1,623 (51.4%)	1,040 (32.9%)	353 (11.2%)	307 (9.7%)	380 (12.0%)	1,486 (47.1%)	1,205 (38.2%)
2011	3,181	626 (19.7%)	856 (26.9%)	1,755 (55.2%)	1,673 (52.6%)	1,056 (33.2%)	352 (11.1%)	295 (9.3%)	409 (12.9%)	1,499 (47.1%)	1,225 (38.5%)
2012	3,267	642 (19.7%)	860 (26.3%)	1,818 (55.6%)	1,743 (53.4%)	1,059 (32.4%)	352 (10.8%)	283 (8.7%)	424 (13.0%)	1,566 (47.9%)	1,288 (39.4%)

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2013	3,199	648 (20.3%)	824 (25.8%)	1,838 (57.5%)	1,757 (54.9%)	950 (29.7%)	272 (8.5%)	275 (8.6%)	403 (12.6%)	1,601 (50.0%)	1,316 (41.1%)
2014	3,297	657 (19.9%)	862 (26.1%)	1,939 (58.8%)	1,800 (54.6%)	940 (28.5%)	260 (7.9%)	274 (8.3%)	406 (12.3%)	1,700 (51.6%)	1,359 (41.2%)
2015	3,266	618 (18.9%)	833 (25.5%)	1,953 (59.8%)	1,828 (56.0%)	950 (29.1%)	275 (8.4%)	282 (8.6%)	393 (12.0%)	1,698 (52.0%)	1,408 (43.1%)
2016	3,332	647 (19.4%)	854 (25.6%)	1,956 (58.7%)	1,855 (55.7%)	951 (28.5%)	300 (9.0%)	247 (7.4%)	404 (12.1%)	1,734 (52.0%)	1,426 (42.8%)
Stage IIIB											
2010	2,020	349 (17.3%)	139 (6.9%)	1,407 (69.7%)	1,323 (65.5%)	537 (26.6%)	22 (1.1%)	284 (14.1%)	231 (11.4%)	1,134 (56.1%)	1,081 (53.5%)
2011	2,123	387 (18.2%)	130 (6.1%)	1,470 (69.2%)	1,375 (64.8%)	554 (26.1%)	27 (1.3%)	299 (14.1%)	228 (10.7%)	1,182 (55.7%)	1,136 (53.5%)
2012	2,136	421 (19.7%)	118 (5.5%)	1,447 (67.7%)	1,361 (63.7%)	564 (26.4%)	16 (0.7%)	303 (14.2%)	245 (11.5%)	1,151 (53.9%)	1,109 (51.9%)
2013	2,038	343 (16.8%)	148 (7.3%)	1,440 (70.7%)	1,330 (65.3%)	546 (26.8%)	28 (1.4%)	299 (14.7%)	219 (10.7%)	1,149 (56.4%)	1,103 (54.1%)
2014	2,111	383 (18.1%)	123 (5.8%)	1,503 (71.2%)	1,390 (65.8%)	509 (24.1%)	17 (0.8%)	292 (13.8%)	200 (9.5%)	1,219 (57.7%)	1,182 (56.0%)
2015	2,077	392 (18.9%)	108 (5.2%)	1,466 (70.6%)	1,341 (64.6%)	513 (24.7%)	17 (0.8%)	299 (14.4%)	197 (9.5%)	1,172 (56.4%)	1,139 (54.8%)
2016	2,115	392 (18.5%)	154 (7.3%)	1,484 (70.2%)	1,333 (63.0%)	535 (25.3%)	44 (2.1%)	304 (14.4%)	187 (8.8%)	1,188 (56.2%)	1,138 (53.8%)
Stage IIIB,											
<65 y											
2010	794	90 (11.3%)	64 (8.1%)	631 (79.5%)	577 (72.7%)	171 (21.5%)	9 (1.1%)	101 (12.7%)	61 (7.7%)	533 (67.1%)	513 (64.6%)
2011	827	98 (11.9%)	67 (8.1%)	652 (78.8%)	601 (72.7%)	169 (20.4%)	14 (1.7%)	96 (11.6%)	59 (7.1%)	560 (67.7%)	538 (65.1%)
2012	779	106 (13.6%)	63 (8.1%)	615 (78.9%)	552 (70.9%)	153 (19.6%)	2 (0.3%)	97 (12.5%)	54 (6.9%)	520 (66.8%)	496 (63.7%)
2013	785	89 (11.3%)	81 (10.3%)	639 (81.4%)	567 (72.2%)	153 (19.5%)	9 (1.1%)	98 (12.5%)	46 (5.9%)	543 (69.2%)	519 (66.1%)
2014	784	101 (12.9%)	57 (7.3%)	631 (80.5%)	571 (72.8%)	146 (18.6%)	5 (0.6%)	95 (12.1%)	46 (5.9%)	537 (68.5%)	524 (66.8%)
2015	752	100 (13.3%)	49 (6.5%)	608 (80.9%)	534 (71.0%)	147 (19.5%)	4 (0.5%)	103 (13.7%)	40 (5.3%)	505 (67.2%)	494 (65.7%)
2016	761	114 (15.0%)	55 (7.2%)	596 (78.3%)	512 (67.3%)	153 (20.1%)	18 (2.4%)	102 (13.4%)	33 (4.3%)	494 (64.9%)	479 (62.9%)
Stage IIIB,											
≥65 y											
2010	1,226	259 (21.1%)	75 (6.1%)	776 (63.3%)	746 (60.8%)	366 (29.9%)	13 (1.1%)	183 (14.9%)	170 (13.9%)	601 (49.0%)	568 (46.3%)
2011	1,296	289 (22.3%)	63 (4.9%)	818 (63.1%)	774 (59.7%)	385 (29.7%)	13 (1.0%)	203 (15.7%)	169 (13.0%)	622 (48.0%)	598 (46.1%)
2012	1,357	315 (23.2%)	55 (4.1%)	832 (61.3%)	809 (59.6%)	411 (30.3%)	14 (1.0%)	206 (15.2%)	191 (14.1%)	631 (46.5%)	613 (45.2%)
2013	1,253	254 (20.3%)	67 (5.3%)	801 (63.9%)	763 (60.9%)	393 (31.4%)	19 (1.5%)	201 (16.0%)	173 (13.8%)	606 (48.4%)	584 (46.6%)
2014	1,327	282 (21.3%)	66 (5.0%)	872 (65.7%)	819 (61.7%)	363 (27.4%)	12 (0.9%)	197 (14.8%)	154 (11.6%)	682 (51.4%)	658 (49.6%)
2015	1,325	292 (22.0%)	59 (4.5%)	858 (64.8%)	807 (60.9%)	366 (27.6%)	13 (1.0%)	196 (14.8%)	157 (11.8%)	667 (50.3%)	645 (48.7%)
2016	1,354	278 (20.5%)	99 (7.3%)	888 (65.6%)	821 (60.6%)	382 (28.2%)	26 (1.9%)	202 (14.9%)	154 (11.4%)	694 (51.3%)	659 (48.7%)
Stage IV											
2010	17,359	5,554 (32.0%)	681 (3.9%)	8,772 (50.5%)	7,280 (41.9%)	7,053 (40.6%)	235 (1.4%)	4,096 (23.6%)	2,722 (15.7%)	4,752 (27.4%)	4,482 (25.8%)
2011	16,932	5,368 (31.7%)	669 (4.0%)	8,597 (50.8%)	7,003 (41.4%)	7,042 (41.6%)	246 (1.5%)	4,131 (24.4%)	2,665 (15.7%)	4,522 (26.7%)	4,282 (25.3%)
2012	17,313	5,605 (32.4%)	654 (3.8%)	8,785 (50.7%)	7,176 (41.4%)	6,966 (40.2%)	212 (1.2%)	4,116 (23.8%)	2,638 (15.2%)	4,742 (27.4%)	4,465 (25.8%)
2013	17,240	5,323 (30.9%)	614 (3.6%)	8,956 (51.9%)	7,290 (42.3%)	7,121 (41.3%)	212 (1.2%)	4,227 (24.5%)	2,682 (15.6%)	4,796 (27.8%)	4,541 (26.3%)
2014	17,306	5,422 (31.3%)	577 (3.3%)	9,076 (52.4%)	7,152 (41.3%)	7,102 (41.0%)	186 (1.1%)	4,368 (25.2%)	2,548 (14.7%)	4,782 (27.6%)	4,530 (26.2%)
2015	17,163	5,428 (31.6%)	556 (3.2%)	9,005 (52.5%)	6,971 (40.6%)	7,078 (41.2%)	164 (1.0%)	4,414 (25.7%)	2,500 (14.6%)	4,657 (27.1%)	4,405 (25.7%)
2016	16,890	5,583 (33.1%)	555 (3.3%)	8,563 (50.7%)	6,785 (40.2%)	6,850 (40.6%)	186 (1.1%)	4,167 (24.7%)	2,497 (14.8%)	4,457 (26.4%)	4,227 (25.0%)
Stage IV,		·	-				-				
<65 y											
					•			•	•		

2010	6,223	1,322 (21.2%)	309 (5.0%)	3,868 (62.2%)	3,255 (52.3%)	2,480 (39.9%)	76 (1.2%)	1,479 (23.8%)	925 (14.9%)	2,421 (38.9%)	2,298 (36.9%)
2011	6,237	1,339 (21.5%)	301 (4.8%)	3,897 (62.5%)	3,151 (50.5%)	2,553 (40.9%)	80 (1.3%)	1,579 (25.3%)	894 (14.3%)	2,345 (37.6%)	2,230 (35.8%)
2012	6,242	1,395 (22.3%)	282 (4.5%)	3,858 (61.8%)	3,135 (50.2%)	2,511 (40.2%)	66 (1.1%)	1,551 (24.8%)	894 (14.3%)	2,336 (37.4%)	2,212 (35.4%)
2013	6,171	1,274 (20.6%)	281 (4.6%)	3,921 (63.5%)	3,193 (51.7%)	2,483 (40.2%)	85 (1.4%)	1,539 (24.9%)	859 (13.9%)	2,414 (39.1%)	2,302 (37.3%)
2014	6,091	1,271 (20.9%)	245 (4.0%)	3,940 (64.7%)	3,069 (50.4%)	2,460 (40.4%)	53 (0.9%)	1,613 (26.5%)	794 (13.0%)	2,360 (38.7%)	2,242 (36.8%)
2015	5,945	1,282 (21.6%)	239 (4.0%)	3,803 (64.0%)	2,951 (49.6%)	2,409 (40.5%)	51 (0.9%)	1,574 (26.5%)	784 (13.2%)	2,254 (37.9%)	2,142 (36.0%)
2016	5,753	1,313 (22.8%)	244 (4.2%)	3,556 (61.8%)	2,864 (49.8%)	2,295 (39.9%)	61 (1.1%)	1,439 (25.0%)	795 (13.8%)	2,145 (37.3%)	2,041 (35.5%)
Stage IV,											
≥65 y											
2010	11,136	4,232 (38.0%)	372 (3.3%)	4,904 (44.0%)	4,025 (36.1%)	4,573 (41.1%)	159 (1.4%)	2,617 (23.5%)	1,797 (16.1%)	2,331 (20.9%)	2,184 (19.6%)
2011	10,695	4,029 (37.7%)	368 (3.4%)	4,700 (43.9%)	3,852 (36.0%)	4,489 (42.0%)	166 (1.6%)	2,552 (23.9%)	1,771 (16.6%)	2,177 (20.4%)	2,052 (19.2%)
2012	11,071	4,210 (38.0%)	372 (3.4%)	4,927 (44.5%)	4,041 (36.5%)	4,455 (40.2%)	146 (1.3%)	2,565 (23.2%)	1,744 (15.8%)	2,406 (21.7%)	2,253 (20.4%)
2013	11,069	4,049 (36.6%)	333 (3.0%)	5,035 (45.5%)	4,097 (37.0%)	4,638 (41.9%)	127 (1.1%)	2,688 (24.3%)	1,823 (16.5%)	2,382 (21.5%)	2,239 (20.2%)
2014	11,215	4,151 (37.0%)	332 (3.0%)	5,136 (45.8%)	4,083 (36.4%)	4,642 (41.4%)	133 (1.2%)	2,755 (24.6%)	1,754 (15.6%)	2,422 (21.6%)	2,288 (20.4%)
2015	11,218	4,146 (37.0%)	317 (2.8%)	5,202 (46.4%)	4,020 (35.8%)	4,669 (41.6%)	113 (1.0%)	2,840 (25.3%)	1,716 (15.3%)	2,403 (21.4%)	2,263 (20.2%)
2016	11,137	4,270 (38.3%)	311 (2.8%)	5,007 (45.0%)	3,921 (35.2%)	4,555 (40.9%)	125 (1.1%)	2,728 (24.5%)	1,702 (15.3%)	2,312 (20.8%)	2,186 (19.6%)

Treatment data presented as n (%=n/N).

eTable 7. Incidence of Stage I NSCLC in patients ≥65 years of age and Medicare Part B CT scan proportions

Year	% year-on-year change in Stage I NSCLC incidence, ≥65 years*	Number of Medicare Part B patients receiving low dose CT scans (HCPCS	Medicare Part B lives‡	Percent receiving low dose CT	
		code G0297)†		scans	
2010	-	0	43,903,273	0.0000	
2011	1.08	0	44,936,829	0.0000	
2012	-2.97	0	46,493,389	0.0000	
2013	2.64	0	47,959,444	0.0000	
2014	-1.24	0	49,412,177	0.0000	
2015	1.99	10,010	60,757,651	0.0165	
2016	2.03	76,452	52,085,697	0.1468	
2017	3.03	141,509	53,350,096	0.2652	
2018	-	208,309	54,689,754	0.3809	

^{*}Derived from eTable 3

‡https://www.cms.gov/files/document/2018-mdcr-enroll-ab-3.pdf

[†]Part B National Summary Data File for each year, available from https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/Part-B-National-Summary-Data-File/Overview