

Appendices on Demographic and Health Conditions

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Appendix 1
Utilization for Selected Demographic and Health Condition
Subpopulations

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Table A.1-1
Proportion and utilization of institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by age

Measures by setting	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	21–44	45 and older	21–44	45 and older	21–44	45 and older	21–44	45 and older	21–44	45 and older	21–44	45 and older
Number of beneficiaries	30,485	61,148	56,831	95,957	23,440	47,177	54,404	94,508	20,003	41,889	52,106	95,601
Institutional setting												
Inpatient admissions ¹												
% with use	3.2	3.6	2.8	3.7	3.0	3.3	2.7	3.6	2.8	2.7	2.6	3.3
Utilization per 1,000 user months	193.3	191.7	187.1	188.6	191.4	190.1	185.8	185.5	168.6	162.0	161.3	159.0
Utilization per 1,000 eligible months	37.5	42.2	33.4	43.5	35.3	38.1	32.1	41.5	33.2	32.0	29.6	37.6
Inpatient psychiatric												
% with use	1.2	0.6	0.9	0.6	1.1	0.6	0.9	0.6	1.1	0.5	0.9	0.5
Utilization per 1,000 user months	171.1	156.7	175.3	160.8	173.6	156.8	175.2	157.6	152.8	136.2	155.7	134.8
Utilization per 1,000 eligible months	12.6	6.6	10.5	6.5	12.3	6.3	10.5	6.3	11.9	5.7	9.8	5.6
Inpatient non-psychiatric												
% with use	2.1	3.1	2.0	3.2	2.0	2.7	1.9	3.1	1.9	2.3	1.7	2.8
Utilization per 1,000 user months	173.4	182.0	169.5	179.5	169.0	180.2	168.7	176.0	146.0	152.3	143.2	150.8
Utilization per 1,000 eligible months	25.0	35.6	23.0	37.0	23.0	31.8	21.6	35.2	21.3	26.3	19.8	32.0
Inpatient dementia												
% with use	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Utilization per user months	0.0	89.9	83.3	129.1	166.7	105.3	166.7	104.3	0.0	87.0	0.0	87.7
Utilization per eligible months	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Emergency department use (non-admit)												
% with use	9.3	7.1	8.0	6.7	8.9	6.9	7.9	6.6	8.7	6.7	7.9	6.7
Utilization per 1,000 user months	266.7	224.6	270.4	224.0	262.3	220.9	263.6	219.9	231.6	195.8	243.4	198.6
Utilization per 1,000 eligible months	126.8	92.1	110.7	87.2	119.8	88.7	107.5	84.7	117.7	87.1	108.0	85.7
Emergency department use (psychiatric)												
% with use	1.2	0.7	0.7	0.5	1.2	0.8	0.7	0.5	1.2	0.8	0.7	0.4
Utilization per 1,000 user months	177.6	187.0	162.1	162.0	181.3	204.3	160.3	160.3	166.6	179.0	142.9	135.8
Utilization per 1,000 eligible months	14.7	9.4	9.0	6.2	14.9	10.6	8.9	6.0	16.2	11.1	9.0	5.6

(continued)

Table A.1-1 (continued)

Proportion and utilization of institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by age

Measures by setting	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	21–44	45 and older	21–44	45 and older	21–44	45 and older	21–44	45 and older	21–44	45 and older	21–44	45 and older
Observation stays												
% with use	0.5	0.8	0.4	0.7	0.5	0.8	0.5	0.7	0.5	0.8	0.5	0.8
Utilization per 1,000 user months	125.9	116.9	123.3	114.9	120.0	116.4	124.6	115.1	105.6	98.5	105.4	97.7
Utilization per 1,000 eligible months	5.9	8.0	4.8	7.0	5.8	8.3	5.2	7.4	6.0	8.0	5.9	7.9
Skilled nursing facility												
% with use	0.1	0.5	0.1	0.6	0.1	0.5	0.1	0.7	0.1	0.4	0.1	0.6
Utilization per 1,000 user months	143.3	142.0	143.7	155.7	145.6	146.3	145.9	155.4	113.6	124.2	121.8	130.7
Utilization per 1,000 eligible months	1.0	5.3	1.1	6.8	0.9	5.1	1.2	7.3	0.8	3.9	1.1	6.5
Hospice												
% with use	0.0	0.2	0.0	0.3	0.0	0.2	0.1	0.3	0.0	0.1	0.0	0.3
Utilization per 1,000 user months	443.6	396.1	397.4	404.1	469.8	407.3	487.1	411.6	350.5	345.8	395.3	373.2
Utilization per 1,000 eligible months	0.4	2.1	0.4	2.8	0.4	2.1	0.6	3.2	0.3	1.4	0.3	3.1
Non-institutional setting												
Primary care E&M visits												
% with use	33.3	46.6	32.6	48.4	38.7	50.5	37.4	52.1	41.5	51.4	37.5	52.6
Utilization per 1,000 user months	641.4	876.3	643.1	919.7	770.4	977.8	742.8	1,025.0	833.6	1,012.5	743.3	1,026.2
Utilization per 1,000 eligible months	526.0	798.0	507.8	836.9	639.5	891.4	607.2	941.8	720.3	939.1	608.4	945.8
Behavioral health visits												
% with use	23.7	21.0	18.7	17.1	14.3	13.1	12.1	11.3	10.3	9.6	9.7	9.5
Utilization per 1,000 user months	1,027.8	1,000.7	1,022.4	941.0	760.2	767.4	780.9	747.3	729.2	830.7	809.6	864.0
Utilization per 1,000 eligible months	479.5	415.8	385.8	336.9	308.1	276.3	259.1	241.3	231.8	211.9	208.3	204.3
Outpatient therapy (PT, OT, ST)												
% with use	1.6	2.7	1.4	3.0	1.5	2.6	1.4	3.0	1.3	2.4	1.4	3.1
Utilization per 1,000 user months	1,417.4	2,341.8	1,928.5	3,358.1	1,511.4	2,237.6	1,922.1	3,476.8	1,320.8	2,013.5	2,006.1	3,666.3
Utilization per 1,000 eligible months	109.5	295.6	124.7	439.8	106.6	272.4	125.5	449.9	101.9	260.4	150.0	534.6

(continued)

Table A.1-1 (continued)

Proportion and utilization of institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by age

Measures by setting	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	21–44	45 and older	21–44	45 and older	21–44	45 and older	21–44	45 and older	21–44	45 and older	21–44	45 and older
Independent therapy (PT, OT, ST)												
% with use	1.0	1.3	1.0	1.4	0.8	1.3	0.9	1.4	0.8	1.3	0.9	1.5
Utilization per 1,000 user months	1,939.5	2,161.7	2,572.7	2,674.2	1,930.1	2,351.1	2,412.3	2,720.4	1,986.5	2,435.9	2,513.9	2,781.5
Utilization per 1,000 eligible months	86.9	130.8	102.8	159.9	70.3	132.6	92.2	160.0	86.2	156.5	107.2	192.4
Home health episodes												
% with use	0.5	1.7	0.5	1.3	0.4	1.4	0.5	1.4	0.7	1.3	0.5	1.3
Utilization per 1,000 user months	170.6	179.4	165.5	165.4	159.0	173.5	165.5	163.6	318.5	224.2	143.1	142.1
Utilization per 1,000 eligible months	5.5	16.8	5.3	13.6	4.6	14.6	5.4	13.6	12.7	18.1	5.1	13.5
Durable medical equipment												
% with use	7.4	14.4	8.1	15.5	6.7	13.3	7.8	14.7	6.3	12.2	6.8	13.3
Utilization per 1,000 user months	—	—	—	—	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—	—	—	—	—
Other hospital outpatient services												
% with use	30.4	39.7	17.1	24.4	28.6	38.8	16.7	24.1	27.8	37.4	16.4	24.3
Utilization per 1,000 user months	—	—	—	—	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—	—	—	—	—

— Durable medical equipment and other outpatient services are defined as having any of those services during the eligible month. E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

¹ Includes acute admissions, inpatient rehabilitation, and long-term care hospital admissions.

Note: Utilization for inpatient admissions, inpatient psychiatric admissions, inpatient substance abuse, skilled nursing facility, and hospice are defined as number of admissions during the eligible/user month. Utilization for emergency department (non-admit), emergency department (psychiatric), observation stays, specialist E&M visits, primary care E&M visits, behavioral health visits, home health, and outpatient and independent therapy are defined as the number of visits during the eligible/user month. Durable medical equipment and other outpatient services are defined as having any of those services during the eligible month.

Table A.1-2
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by sex

Measures by setting	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Number of beneficiaries	45,811	45,822	72,934	79,854	35,944	34,673	71,229	77,683	31,306	30,586	71,178	76,529
Institutional setting												
Inpatient admissions ¹												
% with use	3.5	3.4	3.3	3.6	3.3	3.1	3.2	3.4	2.9	2.6	3.0	3.1
Utilization per 1,000 user months	203.1	181.7	194.8	182.2	200.4	180.4	192.7	178.7	177.3	150.9	165.7	153.8
Utilization per 1,000 eligible months	42.2	39.0	38.6	41.5	38.7	35.6	37.7	38.9	34.6	30.1	34.4	35.4
Inpatient psychiatric												
% with use	0.9	0.7	0.8	0.7	0.9	0.7	0.8	0.6	0.8	0.6	0.7	0.6
Utilization per 1,000 user months	167.4	159.0	170.1	163.6	170.4	157.8	170.6	158.9	148.4	139.1	152.1	133.8
Utilization per 1,000 eligible months	9.4	7.8	8.5	7.2	9.4	7.3	8.5	6.9	8.5	7.0	8.1	6.0
Inpatient non-psychiatric												
% with use	2.8	2.7	2.6	3.0	2.5	2.5	2.5	2.8	2.2	2.0	2.3	2.6
Utilization per 1,000 user months	190.9	169.3	182.6	172.1	186.7	167.7	179.9	168.9	163.2	138.0	152.6	145.5
Utilization per 1,000 eligible months	32.8	31.2	30.1	34.3	29.3	28.3	29.1	32.0	26.1	23.1	26.4	29.4
Inpatient dementia												
% with use	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Utilization per 1,000 user months	89.9	0.0	106.2	142.6	108.7	250.0	97.7	132.3	66.7	125.0	90.5	66.7
Utilization per 1,000 eligible months	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Emergency department use (non-admit)												
% with use	7.2	8.4	6.2	8.2	7.0	8.2	6.1	8.1	6.9	7.8	6.1	8.1
Utilization per 1,000 user months	239.4	240.8	236.8	243.5	236.4	235.9	232.8	237.8	215.6	202.3	207.3	220.0
Utilization per 1,000 eligible months	97.2	110.2	84.5	106.4	93.6	105.1	82.5	103.3	94.3	100.2	82.1	105.1
Emergency department use (psychiatric)												
% with use	1.0	0.7	0.7	0.5	1.1	0.7	0.7	0.5	1.2	0.7	0.6	0.4
Utilization per 1,000 user months	198.6	161.6	175.8	143.9	214.3	164.1	174.0	141.5	200.4	135.1	150.7	123.2
Utilization per 1,000 eligible months	13.9	8.4	8.7	5.6	15.5	8.4	8.5	5.4	17.1	8.3	8.2	5.3

(continued)

Table A.1-2 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by sex

Measures by setting	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Observation stays												
% with use	0.6	0.7	0.5	0.7	0.6	0.8	0.5	0.7	0.6	0.7	0.6	0.8
Utilization per 1,000 user months	121.2	117.6	120.1	114.7	118.6	116.2	118.1	117.1	101.3	99.4	99.3	100.1
Utilization per 1,000 eligible months	6.8	7.9	5.3	7.2	6.7	8.1	5.8	7.7	6.9	7.8	6.0	8.6
Skilled nursing facility												
% with use	0.4	0.3	0.4	0.4	0.3	0.3	0.5	0.5	0.3	0.2	0.4	0.4
Utilization per 1,000 user months	147.4	137.1	159.5	150.2	148.0	144.4	159.6	148.8	132.2	113.4	133.8	125.9
Utilization per 1,000 eligible months	3.9	3.8	4.7	4.9	3.7	3.6	5.5	4.9	3.2	2.6	4.8	4.5
Hospice												
% with use	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2
Utilization per 1,000 user months	368.6	434.8	413.8	392.9	405.5	419.7	412.4	423.8	323.5	370.8	378.4	368.9
Utilization per 1,000 eligible months	1.5	1.5	2.1	1.9	1.7	1.4	2.5	2.1	1.0	1.1	2.4	1.9
Non-institutional setting												
Primary care E&M visits												
% with use	37.5	46.8	38.5	47.7	42.0	51.2	43.0	51.3	43.3	53.1	43.4	51.8
Utilization per 1,000 user months	728.6	870.3	760.7	902.2	830.7	989.0	867.6	1,003.0	866.0	1,042.5	868.2	1,005.8
Utilization per 1,000 eligible months	611.2	801.9	629.9	821.8	702.1	914.1	740.0	920.4	754.8	982.9	740.4	928.0
Behavioral health visits												
% with use	19.6	24.1	17.3	18.1	11.9	15.2	11.0	12.2	8.5	11.2	8.8	10.3
Utilization per 1,000 user months	926.4	1,082.8	933.9	1,006.1	693.2	829.3	712.9	807.6	724.2	850.2	813.3	874.2
Utilization per 1,000 eligible months	371.4	502.4	336.1	371.8	242.0	334.0	229.1	267.2	181.1	257.0	187.4	225.0
Outpatient therapy (PT, OT, ST)												
% with use	2.0	2.7	2.1	2.8	1.8	2.6	2.2	2.8	1.6	2.5	2.1	2.9
Utilization per 1,000 user months	2,297.0	2,002.5	3,211.5	2,951.8	2,181.3	1,991.1	3,366.7	2,977.8	1,978.2	1,772.6	3,646.1	3,074.2
Utilization per 1,000 eligible months	208.8	257.5	299.3	365.6	187.9	245.7	310.7	368.1	178.4	239.0	371.4	439.0

(continued)

Table A.1-2 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by sex

Measures by setting	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Independent therapy (PT, OT, ST)												
% with use	0.8	1.6	0.9	1.7	0.8	1.5	0.9	1.6	0.7	1.5	0.9	1.6
Utilization per 1,000 user months	2,056.7	2,125.0	2,719.1	2,608.4	2,108.9	2,325.6	2,685.6	2,616.0	2,212.7	2,386.7	2,797.4	2,670.2
Utilization per 1,000 eligible months	79.0	153.0	101.4	180.7	75.1	149.3	100.3	176.0	90.0	178.0	120.8	208.8
Home health episodes												
% with use	1.2	1.4	0.9	1.2	1.0	1.2	0.9	1.2	1.1	1.1	0.9	1.2
Utilization per 1,000 user months	181.7	175.2	169.3	162.6	176.1	167.2	169.0	159.9	268.4	219.7	145.7	139.3
Utilization per 1,000 eligible months	11.9	14.1	9.2	12.4	10.4	12.0	9.5	12.2	16.7	15.9	9.6	11.8
Durable medical equipment												
% with use	11.1	12.9	11.2	14.8	10.1	12.1	10.8	14.0	9.4	11.2	9.7	12.5
Utilization per 1,000 user months	—	—	—	—	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—	—	—	—	—
Other hospital outpatient services												
% with use	32.8	40.4	18.6	25.3	31.3	39.6	18.4	24.9	30.2	38.4	18.4	25.1
Utilization per 1,000 user months	—	—	—	—	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—	—	—	—	—

— Durable medical equipment and other outpatient services are defined as having any of those services during the eligible month. E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

¹ Includes acute admissions, inpatient rehabilitation, and long-term care hospital admissions.

Note: Utilization for inpatient admissions, inpatient psychiatric admissions, inpatient substance abuse, skilled nursing facility, and hospice are defined as number of admissions during the eligible/user month. Utilization for emergency department (non-admit), emergency department (psychiatric), observation stays, specialist E&M visits, primary care E&M visits, behavioral health visits, home health, and outpatient and independent therapy are defined as the number of visits during the eligible/user month. Durable medical equipment and other outpatient services are defined as having any of those services during the eligible month.

Table A.1-3

Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by race

Measures by setting	Baseline period 1 10/1/2011–9/30/2012								Baseline period 2 10/1/2012–9/30/2013								Demonstration period 10/1/2013–12/31/2014							
	Demonstration				Comparison				Demonstration				Comparison				Demonstration				Comparison			
	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI
Number of beneficiaries	66,155	11,268	8,839	1,772	92,982	51,269	4,021	1,761	49,004	9,476	7,351	1,571	89,075	50,954	4,085	1,934	41,052	9,065	7,388	1,329	87,481	50,712	4,183	1,993
Institutional setting																								
Inpatient admissions ¹																								
% with use	3.6	3.7	2.4	1.9	3.3	4.0	3.1	2.0	3.3	3.5	2.3	1.6	3.2	3.7	2.7	2.0	3.0	3.1	1.8	1.5	3.0	3.2	2.5	1.7
Utilization per 1,000 user months	194.4	200.2	168.1	152.0	184.3	201.8	182.1	162.9	192.2	198.5	173.1	168.0	182.0	196.4	180.1	183.0	168.5	164.1	138.8	135.0	157.0	168.1	150.9	135.2
Utilization per 1,000 eligible months	42.8	44.6	27.1	20.6	38.7	46.4	36.0	23.2	39.2	41.2	26.2	18.8	37.5	42.6	31.1	21.7	34.9	36.2	20.0	16.7	34.7	37.5	27.7	19.2
Inpatient psychiatric																								
% with use	0.9	0.7	0.5	0.5	0.7	0.7	0.7	0.5	0.8	0.7	0.5	0.4	0.7	0.6	0.6	0.7	0.8	0.6	0.5	0.5	0.7	0.6	0.6	0.6
Utilization per 1,000 user months	163.3	166.5	163.4	143.9	166.4	171.3	160.9	151.3	165.9	164.4	162.9	149.0	163.2	173.3	159.3	186.9	146.1	141.4	133.1	134.4	141.7	150.6	160.6	133.8
Utilization per 1,000 eligible months	9.3	7.7	5.4	5.6	8.1	7.2	7.3	5.9	9.1	7.4	5.8	4.7	8.0	7.1	5.9	7.2	8.6	7.1	5.0	5.3	7.3	6.5	6.7	6.8
Inpatient non-psychiatric																								
% with use	2.9	3.1	1.9	1.4	2.7	3.4	2.5	1.5	2.6	2.9	1.8	1.2	2.6	3.1	2.1	1.3	2.3	2.5	1.3	1.0	2.4	2.7	1.9	1.1
Utilization per 1,000 user months	180.4	194.2	157.1	147.7	171.4	194.9	176.6	157.7	176.6	192.9	160.8	164.9	168.9	189.4	174.1	161.0	152.8	156.4	128.5	125.1	144.9	161.0	136.6	123.6
Utilization per 1,000 eligible months	33.4	36.9	21.7	15.0	30.6	39.2	28.7	17.3	30.1	33.8	20.3	14.0	29.4	35.5	25.3	14.4	26.3	29.1	15.0	11.4	27.4	31.0	21.0	12.5
Inpatient dementia																								
% with use	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Utilization per 1,000 user months	87.0	83.3	125.0	0.0	127.5	117.8	0.0	0.0	131.6	0.0	83.3	0.0	111.9	95.7	0.0	0.0	87.0	0.0	0.0	0.0	88.4	87.4	66.7	0.0
Utilization per 1,000 eligible months	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(continued)

Table A.1-3 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by race

Measures by setting	Baseline period 1 10/1/2011–9/30/2012								Baseline period 2 10/1/2012–9/30/2013								Demonstration period 10/1/2013–12/31/2014							
	Demonstration				Comparison				Demonstration				Comparison				Demonstration				Comparison			
	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI
Emergency department use (non-admit)																								
% with use	7.7	8.8	8.6	3.4	6.9	8.3	8.3	2.8	7.5	8.6	8.2	3.2	6.8	8.2	8.3	2.9	7.2	8.1	7.8	3.1	6.8	8.1	8.1	3.0
Utilization per 1,000 user months	242.1	251.9	223.8	206.2	237.8	249.1	240.4	164.0	240.0	242.4	216.7	161.9	233.3	243.0	237.6	164.1	211.5	217.2	192.9	157.3	211.9	221.9	199.5	155.7
Utilization per 1,000 eligible months	102.7	119.4	108.5	47.9	91.5	110.7	109.0	33.0	98.9	111.7	102.3	37.2	88.6	107.5	106.1	34.1	96.8	108.5	99.0	38.5	89.5	106.9	97.9	35.9
Emergency department use (psychiatric)																								
% with use	0.9	0.9	0.7	0.4	0.6	0.5	0.6	0.3	1.0	0.9	0.7	0.3	0.6	0.5	0.5	0.3	1.0	1.0	0.7	0.3	0.6	0.5	0.5	0.3
Utilization per 1,000 user months	185.6	179.6	173.7	206.7	160.1	173.8	135.5	129.7	194.0	203.0	191.0	144.5	155.7	181.0	140.0	135.6	173.8	187.4	172.9	107.5	134.9	152.5	142.2	149.5
Utilization per 1,000 eligible months	11.8	11.2	8.9	5.9	7.4	6.9	6.4	3.3	12.8	12.2	9.9	3.5	7.3	6.6	6.0	3.9	13.8	13.4	9.5	3.3	7.0	6.4	5.5	4.0
Observation stays																								
% with use	0.6	1.0	0.6	0.4	0.6	0.7	0.6	0.3	0.7	1.0	0.6	0.4	0.6	0.8	0.6	0.4	0.7	1.0	0.5	0.4	0.7	0.8	0.6	0.3
Utilization per 1,000 user months	117.0	133.2	113.2	109.6	114.8	123.2	116.1	107.5	116.6	126.2	107.9	98.4	114.9	123.8	129.3	103.0	98.6	112.2	91.9	95.3	98.7	102.3	95.6	91.8
Utilization per 1,000 eligible months	6.9	11.3	6.7	3.6	5.9	7.8	6.0	2.8	7.2	10.7	5.9	3.9	6.2	8.3	6.8	3.8	7.1	10.8	5.6	3.8	6.9	8.6	6.1	2.8
Skilled nursing facility																								
% with use	0.4	0.3	0.1	0.1	0.4	0.5	0.2	0.2	0.4	0.3	0.1	0.2	0.5	0.5	0.2	0.1	0.3	0.3	0.1	0.1	0.4	0.4	0.2	0.1
Utilization per 1,000 user months	143.4	137.5	126.6	100.0	152.0	164.1	149.1	139.5	148.1	138.3	128.6	147.5	152.3	163.5	133.7	107.3	124.8	124.8	90.1	123.1	128.9	133.9	111.9	124.5
Utilization per 1,000 eligible months	4.4	3.7	1.1	1.1	4.8	5.4	2.4	2.0	4.1	3.7	1.2	2.2	5.3	5.3	2.3	1.4	3.4	3.0	0.7	1.1	4.9	4.6	1.8	1.1

(continued)

Table A.1-3 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by race

Measures by setting	Baseline period 1 10/1/2011–9/30/2012								Baseline period 2 10/1/2012–9/30/2013								Demonstration period 10/1/2013–12/31/2014							
	Demonstration				Comparison				Demonstration				Comparison				Demonstration				Comparison			
	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI
Hospice																								
% with use	0.2	0.1	0.0	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.0	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.2	0.0	0.1
Utilization per 1,000 user months	402.2	352.6	389.5	194.0	395.5	419.4	473.4	445.5	425.5	300.4	407.1	225.8	423.9	401.6	279.0	240.8	351.9	237.7	520.8	368.4	367.8	396.9	312.4	355.4
Utilization per 1,000 eligible months	1.8	0.9	0.4	0.8	2.1	1.6	1.1	1.9	1.9	0.7	0.7	0.5	2.5	1.7	0.8	1.2	1.3	0.6	0.5	0.5	2.3	2.0	0.3	0.6
Non-institutional setting																								
Primary care E&M visits																								
% with use	43.1	40.0	40.0	36.0	44.4	39.4	37.5	36.1	48.2	42.0	43.1	42.1	49.0	42.2	43.0	40.8	50.2	42.9	44.7	44.2	50.1	41.8	42.6	40.0
Utilization per 1,000 user months	825.2	773.4	724.4	639.7	842.9	813.8	777.8	706.2	953.7	817.7	810.0	753.3	957.3	877.1	892.5	811.3	1,011.9	835.2	848.2	794.7	974.7	852.3	863.1	752.4
Utilization per 1,000 eligible months	731.1	662.0	635.1	548.2	746.4	666.4	638.0	594.5	849.8	703.9	709.6	660.7	863.7	733.0	753.5	706.1	923.3	741.2	763.9	716.6	884.1	717.2	732.0	644.5
Behavioral health visits																								
% with use	24.6	12.7	15.2	15.9	19.8	10.7	18.2	12.9	15.7	7.7	8.5	9.6	13.0	7.1	14.0	7.4	11.8	5.6	5.7	6.5	10.9	5.9	13.5	7.3
Utilization per 1,000 user months	1,065	762	715	1,006	993	820	1,117	1,134	814	619	483	710	777	654	873	806	860	574	487	807	883	683	862	935
Utilization per 1,000 eligible months	502.6	232.0	249.8	289.0	396.8	208.4	384.0	273.5	339.5	160.4	143.7	189.3	281.3	148.5	271.6	155.3	267.4	117.2	99.4	135.9	237.9	119.8	251.5	156.7
Outpatient therapy (PT, OT, ST)																								
% with use	2.5	2.2	1.7	1.5	2.5	2.6	1.9	1.5	2.4	2.0	1.7	1.9	2.4	2.7	2.1	1.6	2.2	2.0	1.6	1.3	2.5	2.7	1.8	1.4
Utilization per 1,000 user months	2,285	1,890	1,217	1,917	3,000	3,297	2,976	3,576	2,180	2,040	1,379	2,035	3,073	3,437	2,368	2,726	2,003	1,676	1,265	1,765	3,301	3,498	1,943	3,885
Utilization per 1,000 eligible months	258.8	200.6	114.5	131.6	330.5	353.5	247.9	205.9	238.5	195.9	126.1	173.0	328.1	389.4	218.4	181.5	233.6	183.1	129.0	122.1	406.3	433.5	200.9	223.6

(continued)

Table A.1-3 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by race

Measures by setting	Baseline period 1 10/1/2011–9/30/2012								Baseline period 2 10/1/2012–9/30/2013								Demonstration period 10/1/2013–12/31/2014							
	Demonstration				Comparison				Demonstration				Comparison				Demonstration				Comparison			
	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI
Independent therapy (PT, OT, ST)																								
% with use	1.2	1.2	1.2	0.9	1.3	1.0	1.2	1.0	1.1	1.1	1.0	0.6	1.3	1.0	1.1	1.1	1.2	1.0	1.0	0.8	1.4	1.1	1.0	1.0
Utilization per 1,000 user months	2,069.1	2,265.8	1,961.4	3,253.7	2,671.5	2,538.6	2,498.9	3,368.8	2,235.9	2,394.2	2,124.7	2,449.2	2,642.6	2,592.7	2,487.8	3,635.2	2,326.3	2,558.3	2,023.9	2,271.4	2,680.3	2,790.1	2,392.0	3,600.0
Utilization per 1,000 eligible months	115.3	125.3	113.9	103.8	150.0	110.0	129.5	130.7	112.8	114.5	108.6	62.9	146.3	108.8	120.0	145.9	135.6	137.3	117.4	96.1	172.1	143.1	124.0	156.1
Home health episodes																								
% with use	1.4	1.5	0.7	0.6	1.1	1.1	0.7	0.4	1.2	1.4	0.6	0.5	1.1	1.1	0.7	0.5	1.1	1.4	0.7	1.0	1.1	1.1	0.6	0.3
Utilization per 1,000 user months	178.4	183.1	167.1	166.4	166.7	163.1	145.8	153.3	172.2	184.1	145.6	148.6	164.4	164.1	155.7	137.2	239.8	230.5	250.8	419.8	141.6	145.7	125.8	105.2
Utilization per 1,000 eligible months	13.8	15.4	7.4	6.2	11.0	10.6	7.6	4.2	11.8	13.8	6.4	5.3	11.1	10.8	6.7	4.9	16.9	19.3	10.5	18.5	10.9	10.8	6.4	3.5
Durable medical equipment																								
% with use	12.3	11.5	11.4	8.2	13.2	12.8	11.9	8.5	11.5	10.6	10.3	6.9	12.6	12.0	11.6	7.7	10.6	10.2	9.6	6.7	11.5	10.3	10.2	7.7
Utilization per 1,000 user months	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other hospital outpatient services																								
% with use	35.3	43.1	37.8	37.5	21.4	24.0	22.4	16.0	33.8	42.0	37.1	34.4	21.0	23.5	21.6	16.2	32.8	39.9	35.1	32.8	21.2	23.2	22.7	16.6
Utilization per 1,000 user months	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

— Durable medical equipment and other outpatient services are defined as having any of those services during the eligible month. E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

¹ Includes acute admissions, inpatient rehabilitation, and long-term care hospital admissions.

Note: Utilization for inpatient admissions, inpatient psychiatric admissions, inpatient substance abuse, skilled nursing facility, and hospice are defined as number of admissions during the eligible/user month. Utilization for Emergency Department (non-admit), Emergency department (psychiatric), observation stays, specialist E&M visits, primary care E&M visits, behavioral health visits, home health, and outpatient and independent therapy are defined as the number of visits during the eligible/user month. Durable medical equipment and other outpatient services are defined as having any of those services during the eligible month.

Table A.1-4
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, beneficiaries with disability

Measures by setting	Baseline period 1 10/1/2011–9/30/2012		Baseline period 2 10/1/2012–9/30/2013		Demonstration period 10/1/2013–12/31/2014	
	Demonstration	Comparison	Demonstration	Comparison	Demonstration	Comparison
Number of beneficiaries	78,676	131,606	61,204	129,471	56,144	130,702
Institutional setting						
Inpatient admissions ¹						
% with use	3.4	3.3	3.2	3.2	2.7	2.9
Utilization per 1,000 user months	191.9	186.3	188.9	183.5	162.5	156.9
Utilization per 1,000 eligible months	40.1	38.4	36.7	36.6	31.9	33.8
Inpatient psychiatric						
% with use	0.9	0.8	0.8	0.8	0.7	0.7
Utilization per 1,000 user months	164.3	169.5	164.9	165.5	144.2	143.9
Utilization per 1,000 eligible months	9.4	8.5	9.0	8.3	8.1	7.4
Inpatient non-psychiatric						
% with use	2.6	2.6	2.4	2.5	2.1	2.3
Utilization per 1,000 user months	177.9	173.1	174.1	170.7	147.8	145.1
Utilization per 1,000 eligible months	30.7	29.9	27.7	28.3	23.9	26.4
Inpatient dementia						
% with use	0.0	0.0	0.0	0.0	0.0	0.0
Utilization per 1,000 user months	83.3	119.8	108.7	97.7	66.7	98.1
Utilization per 1,000 eligible months	0.0	0.0	0.0	0.0	0.0	0.0
Emergency department use (non-admit)						
% with use	8.2	7.4	7.8	7.2	7.5	7.2
Utilization per 1,000 user months	245.3	245.6	239.7	239.0	209.6	215.2
Utilization per 1,000 eligible months	108.8	98.7	103.3	95.5	99.0	94.6
Emergency department use (psychiatric)						
% with use	0.9	0.6	1.0	0.6	1.0	0.6
Utilization per 1,000 user months	183.6	164.1	194.9	160.1	173.9	139.3
Utilization per 1,000 eligible months	12.2	7.8	13.0	7.5	13.3	7.1

(continued)

Table A.1-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, beneficiaries with disability

Measures by setting	Baseline period 1 10/1/2011–9/30/2012		Baseline period 2 10/1/2012–9/30/2013		Demonstration period 10/1/2013–12/31/2014	
	Demonstration	Comparison	Demonstration	Comparison	Demonstration	Comparison
Observation stays						
% with use	0.7	0.6	0.7	0.6	0.7	0.7
Utilization per 1,000 user months	119.3	117.0	116.3	116.9	99.9	99.1
Utilization per 1,000 eligible months	7.1	6.0	7.1	6.4	7.2	7.1
Skilled nursing facility						
% with use	0.3	0.4	0.3	0.4	0.2	0.4
Utilization per 1,000 user months	139.6	151.3	141.6	151.5	120.0	128.0
Utilization per 1,000 eligible months	3.2	4.0	3.1	4.3	2.6	4.2
Hospice						
% with use	0.1	0.2	0.1	0.2	0.1	0.2
Utilization per 1,000 user months	397.2	394.1	415.5	412.6	346.3	373.0
Utilization per 1,000 eligible months	1.5	1.7	1.5	2.1	1.0	2.0
Non-institutional setting						
Primary care E&M visits						
% with use	41.1	41.6	46.1	46.2	48.0	47.2
Utilization per 1,000 user months	784.2	805.1	902.4	914.5	952.7	928.1
Utilization per 1,000 eligible months	685.9	692.9	796.2	805.0	863.4	822.3
Behavioral health visits						
% with use	23.0	18.6	14.1	12.1	10.0	9.8
Utilization per 1,000 user months	1,023.0	983.2	765.7	761.7	788.5	846.4
Utilization per 1,000 eligible months	461.8	372.6	300.0	258.3	222.6	211.7
Outpatient therapy (PT, OT, ST)						
% with use	2.3	2.3	2.1	2.3	2.0	2.4
Utilization per 1,000 user months	1,989.7	2,793.7	1,919.6	2,854.7	1,777.6	3,175.8
Utilization per 1,000 eligible months	211.5	280.9	194.5	288.1	198.1	375.9

(continued)

Table A.1-4 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, beneficiaries with disability

Measures by setting	Baseline period 1 10/1/2011–9/30/2012		Baseline period 2 10/1/2012–9/30/2013		Demonstration period 10/1/2013–12/31/2014	
	Demonstration	Comparison	Demonstration	Comparison	Demonstration	Comparison
Independent therapy (PT, OT, ST)						
% with use	1.2	1.2	1.1	1.2	1.1	1.3
Utilization per 1,000 user months	2,071.7	2,648.6	2,208.2	2,605.8	2,295.5	2,679.2
Utilization per 1,000 eligible months	114.3	137.2	109.2	133.7	131.7	161.0
Home health episodes						
% with use	1.1	0.9	1.0	1.0	1.1	1.0
Utilization per 1,000 user months	173.6	164.0	169.5	162.8	247.9	140.3
Utilization per 1,000 eligible months	11.2	9.6	10.0	9.7	16.1	10.0
Durable medical equipment						
% with use	11.2	12.2	10.5	11.8	9.9	10.8
Utilization per 1,000 user months	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—
Other hospital outpatient services						
% with use	35.7	20.8	34.5	20.5	33.6	20.9
Utilization per 1,000 user months	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—

— Durable medical equipment and other outpatient services are defined as having any of those services during the eligible month. E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

¹ Includes acute admissions, inpatient rehabilitation, and long-term care hospital admissions.

Note: Utilization for inpatient admissions, inpatient psychiatric admissions, inpatient substance abuse, skilled nursing facility, and hospice are defined as number of admissions during the eligible/user month. Utilization for emergency department (non-admit), emergency department (psychiatric), observation stays, specialist E&M visits, primary care E&M visits, behavioral health visits, home health, and outpatient and independent therapy are defined as the number of visits during the eligible/user month. Durable medical equipment and other outpatient services are defined as having any of those services during the eligible month.

Table A.1-5

Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, beneficiaries with Alzheimer's disease or other dementia

Measures by setting	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer
Number of beneficiaries	3,951	886	9,035	2,158	2,666	551	8,196	1,896	1,709	266	6,753	1,456
Institutional setting												
Inpatient admissions ¹												
% with use	8.3	6.4	7.4	5.9	8.1	6.5	7.7	6.4	8.0	6.4	7.2	5.2
Utilization per 1,000 user months	246.0	215.5	225.2	185.6	239.0	199.0	222.7	194.2	230.8	192.4	197.7	163.4
Utilization per 1,000 eligible months	103.8	76.5	89.2	68.1	100.1	73.7	92.7	73.4	100.7	74.2	86.3	59.5
Inpatient psychiatric												
% with use	1.6	1.0	1.2	1.0	1.8	0.8	1.4	1.0	2.0	1.2	1.3	0.8
Utilization per 1,000 user months	170.5	182.2	174.9	157.0	179.6	179.5	173.4	178.6	150.1	150.4	153.6	176.6
Utilization per 1,000 eligible months	18.0	10.6	13.9	10.8	20.1	8.6	14.8	10.4	21.8	12.6	14.1	8.0
Inpatient non-psychiatric												
% with use	7.0	5.5	6.4	5.1	6.6	5.8	6.6	5.5	6.3	5.5	6.2	4.6
Utilization per 1,000 user months	229.1	202.1	210.1	174.5	217.5	186.8	207.7	177.5	213.0	185.2	183.2	148.0
Utilization per 1,000 eligible months	85.8	65.5	75.2	57.2	79.9	64.5	77.6	62.7	78.8	61.6	72.1	51.3
Inpatient dementia												
% with use	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Utilization per 1,000 user months	94.3	83.3	121.8	135.6	125.0	115.4	110.8	99.3	96.8	0.0	81.2	121.8
Utilization per 1,000 eligible months	0.1	0.3	0.1	0.1	0.1	0.5	0.2	0.4	0.1	0.0	0.1	0.2
Emergency department use (non-admit)												
% with use	10.4	7.8	8.4	7.7	10.0	8.1	8.2	7.1	9.9	8.3	8.5	6.7
Utilization per 1,000 user months	290.6	223.0	261.0	211.9	301.6	240.7	251.0	194.7	299.8	228.0	235.0	178.8
Utilization per 1,000 eligible months	150.1	102.1	118.3	97.1	145.1	106.4	113.8	83.7	160.2	112.8	119.6	79.9

(continued)

Table A.1-5 (continued)

Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, beneficiaries with Alzheimer's disease or other dementia

Measures by setting	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer
Emergency department use (psychiatric)												
% with use	1.8	1.0	0.9	0.7	2.1	1.3	0.9	0.4	2.4	1.3	0.8	0.5
Utilization per 1,000 user months	247.4	175.8	187.3	155.1	264.2	222.5	219.2	123.3	265.0	156.5	158.8	114.5
Utilization per 1,000 eligible months	26.4	12.6	12.1	9.1	31.9	16.4	14.7	4.4	40.9	15.7	12.1	5.9
Observation stays												
% with use	1.6	1.1	1.0	0.8	1.6	1.0	1.1	0.9	1.6	1.1	1.2	0.9
Utilization per 1,000 user months	142.7	152.6	123.2	101.1	136.0	123.2	112.9	107.6	123.4	120.3	99.8	93.2
Utilization per 1,000 eligible months	17.3	12.5	10.6	8.5	17.5	10.4	11.1	8.9	17.9	11.9	12.3	9.0
Skilled nursing facility												
% with use	2.2	2.2	2.3	2.2	2.4	2.7	2.8	2.6	2.1	2.6	2.6	1.8
Utilization per 1,000 user months	161.3	157.7	170.4	159.6	165.4	161.5	170.0	161.0	149.8	156.0	144.7	131.1
Utilization per 1,000 eligible months	24.7	23.7	26.1	24.0	26.4	29.3	30.5	27.6	23.0	29.3	28.3	19.0
Hospice												
% with use	0.6	2.4	0.9	1.8	0.8	3.2	1.2	2.5	0.6	2.1	1.3	2.7
Utilization per 1,000 user months	428.1	436.2	430.8	479.9	398.4	501.4	470.3	507.2	409.4	413.2	375.1	426.8
Utilization per 1,000 eligible months	6.7	24.6	8.9	18.3	8.1	32.6	11.7	26.1	6.2	22.2	12.7	27.6
Non-institutional setting												
Primary care E&M visits												
% with use	58.1	59.5	62.1	64.4	62.1	62.9	66.5	70.2	62.8	68.1	68.6	70.8
Utilization per 1,000 user months	1,250.8	1,193.5	1,300.9	1,264.8	1,408.8	1,340.4	1,495.8	1,454.7	1,467.8	1,545.3	1,556.4	1,452.7
Utilization per 1,000 eligible months	1,189.1	1,152.7	1,257.3	1,236.8	1,339.2	1,292.4	1,454.7	1,423.7	1,409.9	1,513.4	1,527.7	1,439.8

(continued)

Table A.1-5 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, beneficiaries with Alzheimer's disease or other dementia

Measures by setting	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer
Behavioral health visits												
% with use	24.8	19.4	17.9	16.2	18.8	13.0	14.8	10.8	15.8	12.9	14.3	8.5
Utilization per 1,000 user months	807.4	642.0	725.9	647.7	766.8	655.7	656.8	571.8	811.9	716.1	753.2	633.0
Utilization per 1,000 eligible months	475.4	331.3	329.7	279.8	428.7	286.1	303.9	226.3	374.5	286.6	298.7	181.2
Outpatient therapy (PT, OT, ST)												
% with use	8.0	6.7	8.7	6.9	8.1	8.4	9.4	8.7	7.7	8.4	10.7	8.4
Utilization per 1,000 user months	5,146.2	4,627.8	5,678.7	4,155.1	4,955.8	5,139.5	6,067.6	4,991.0	5,855.1	5,510.5	6,661.8	5,419.3
Utilization per 1,000 eligible months	1,518.7	1,308.9	1,773.6	1,245.6	1,475.1	1,578.8	1,996.7	1,660.7	1,754.5	1,848.3	2,535.1	1,885.9
Independent therapy (PT, OT, ST)												
% with use	1.2	0.8	1.6	1.5	1.0	1.4	1.6	2.1	0.9	0.4	1.7	2.5
Utilization per 1,000 user months	2,465.1	1,454.3	3,060.5	2,439.3	2,285.1	1,734.4	3,420.8	2,574.9	2,333.3	2,200.0	3,611.5	3,613.1
Utilization per 1,000 eligible months	117.7	66.5	191.1	152.8	97.9	112.9	196.9	205.9	109.9	56.2	243.2	343.0
Home health episodes												
% with use	3.6	3.0	2.4	2.1	3.2	2.8	2.6	2.1	2.6	3.5	2.3	1.9
Utilization per 1,000 user months	198.6	189.5	172.2	155.4	194.0	174.0	171.1	173.1	229.0	196.8	146.6	148.8
Utilization per 1,000 eligible months	36.4	30.1	24.2	20.9	33.0	28.7	25.9	20.8	36.5	37.5	23.0	19.3
Durable medical equipment												
% with use	18.5	17.1	19.5	17.4	16.4	17.3	19.1	17.9	16.4	20.4	17.9	15.1
Utilization per 1,000 user months	—	—	—	—	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—	—	—	—	—

(continued)

Table A.1-5 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, beneficiaries with Alzheimer's disease or other dementia

Measures by setting	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer	Other dementia	Alzheimer
Other hospital outpatient services												
% with use	42.4	36.0	27.4	22.9	40.1	34.5	27.5	23.3	40.2	39.7	27.9	21.7
Utilization per 1,000 user months	—	—	—	—	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—	—	—	—	—

— Durable medical equipment and other outpatient services are defined as having any of those services during the eligible month. E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

¹ Includes acute admissions, inpatient rehabilitation, and long-term care hospital admissions.

Note: Utilization for inpatient admissions, inpatient psychiatric admissions, inpatient substance abuse, skilled nursing facility, and hospice are defined as number of admissions during the eligible/user month. Utilization for emergency department (non-admit), emergency department (psychiatric), observation stays, specialist E&M visits, primary care E&M visits, behavioral health visits, home health, and outpatient and independent therapy are defined as the number of visits during the eligible/user month. Durable medical equipment and other outpatient services are defined as having any of those services during the eligible month.

Table A.1-6
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by HCC score

Measures by setting	Baseline period 1 10/1/2011–9/30/2012								Baseline period 2 10/1/2012–9/30/2013								Demonstration period 10/1/2013–12/31/2014							
	Demonstration				Comparison				Demonstration				Comparison				Demonstration				Comparison			
	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+
Number of beneficiaries	59,949	23,011	6,861	1,812	99,256	37,041	12,698	3,793	48,782	16,672	4,200	963	101,313	34,343	10,534	2,722	39,461	18,462	3,193	776	97,986	37,375	9,507	2,839
Institutional setting																								
Inpatient admissions ¹																								
% with use	1.7	4.3	10.1	20.3	1.8	4.4	9.6	19.6	2.0	4.1	8.9	15.1	2.2	4.4	8.4	15.6	1.8	3.4	7.9	13.6	1.9	3.9	8.1	13.8
Utilization per 1,000 user months	153.1	178.3	232.6	356.6	156.6	179.6	218.5	330.7	167.6	190.2	231.3	291.8	166.4	184.0	220.0	296.6	141.2	163.5	210.5	275.8	141.5	154.0	200.5	266.7
Utilization per 1,000 eligible months	19.5	49.7	121.3	269.4	20.3	51.3	113.3	247.0	23.2	47.9	106.7	189.1	24.6	50.6	99.8	191.2	19.9	39.8	96.1	170.4	21.8	44.2	95.3	168.3
Inpatient psychiatric																								
% with use	0.5	1.2	1.8	1.6	0.5	1.1	1.4	1.2	0.6	1.1	1.7	1.2	0.5	1.0	1.3	1.0	0.5	0.9	1.4	1.1	0.5	0.9	1.1	1.1
Utilization per 1,000 user months	149.1	163.6	195.9	191.9	153.5	178.9	175.5	180.2	153.2	173.8	191.6	148.1	156.5	173.2	185.4	170.0	135.6	146.0	174.6	170.5	137.3	146.3	160.4	183.8
Utilization per 1,000 eligible months	5.2	12.7	19.8	18.3	5.0	12.3	15.4	13.4	6.0	11.5	19.2	12.8	5.9	10.8	14.4	10.4	5.8	9.9	16.3	12.2	5.3	9.5	12.7	12.5
Inpatient non-psychiatric																								
% with use	1.3	3.2	8.7	19.3	1.4	3.4	8.5	18.8	1.5	3.2	7.5	14.4	1.6	3.5	7.4	14.8	1.3	2.6	6.7	12.8	1.5	3.1	7.2	13.0
Utilization per 1,000 user months	142.6	161.6	207.6	337.6	147.4	161.9	201.9	317.3	156.7	172.3	207.3	279.6	156.6	168.0	202.1	289.2	128.7	146.2	188.2	264.0	132.4	139.5	185.2	251.4
Utilization per 1,000 eligible months	14.3	37.0	101.5	251.1	15.3	39.0	97.9	233.6	17.2	36.4	87.4	176.3	18.6	39.8	85.3	180.7	14.1	29.9	79.7	158.1	16.4	34.7	82.6	155.8

(continued)

Table A.1-6 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by HCC score

Measures by setting	Baseline period 1 10/1/2011–9/30/2012								Baseline period 2 10/1/2012–9/30/2013								Demonstration period 10/1/2013–12/31/2014							
	Demonstration				Comparison				Demonstration				Comparison				Demonstration				Comparison			
	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+
Inpatient dementia																								
% with use	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Utilization per 1,000 user months	103	0	83	0	168	103	93	0	188	0	88	0	110	119	86	83	1,000	67	67	0	90	95	67	67
Utilization per 1,000 eligible months	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Emergency department use (non-admit)																								
% with use	6.4	9.0	13.3	16.8	5.6	8.8	12.1	15.4	6.6	8.5	12.6	14.5	6.0	8.4	11.5	14.1	6.3	8.3	12.5	13.9	5.9	8.6	11.2	12.6
Utilization per 1,000 user months	207	250	334	422	210	254	308	411	218	238	330	349	217	242	298	407	187	213	313	371	194	223	279	350
Utilization per 1,000 eligible months	79.2	120.5	199.9	280.2	71.3	118.7	173.9	258.9	83.4	110.9	190.6	224.9	76.1	110.5	163.6	233.7	79.2	109.5	192.3	233.6	74.7	113.5	162.3	215.8
Emergency department use (psychiatric)																								
% with use	0.5	1.2	2.2	2.6	0.4	0.9	1.2	1.1	0.6	1.2	2.2	2.4	0.4	0.7	1.1	1.1	0.7	1.2	2.4	2.7	0.4	0.7	1.0	0.9
Utilization per 1,000 user months	143.3	181.9	259.1	301.4	140.1	168.2	187.1	285.1	165.5	190.1	286.1	366.7	144.6	163.6	200.0	306.6	146.0	176.0	255.6	297.9	122.8	141.6	186.2	287.6
Utilization per 1,000 eligible months	6.0	15.0	31.9	41.1	4.3	10.7	15.9	19.9	8.1	15.0	35.4	41.0	5.2	9.0	15.0	21.1	8.3	15.9	36.9	44.3	4.9	8.8	14.2	17.6

(continued)

Table A.1-6 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by HCC score

Measures by setting	Baseline period 1 10/1/2011–9/30/2012								Baseline period 2 10/1/2012–9/30/2013								Demonstration period 10/1/2013–12/31/2014							
	Demonstration				Comparison				Demonstration				Comparison				Demonstration				Comparison			
	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+
Observation stays																								
% with use	0.4	0.9	1.8	3.1	0.4	0.8	1.4	2.2	0.5	0.9	1.8	2.5	0.4	0.9	1.4	2.2	0.5	0.9	1.8	2.6	0.5	0.9	1.6	2.3
Utilization per 1,000 user months	108.1	115.5	133.5	160.5	114.4	110.9	122.9	155.2	114.8	113.4	124.9	148.4	116.9	113.3	123.1	140.5	93.8	100.8	108.5	137.8	97.1	95.7	112.4	124.2
Utilization per 1,000 eligible months	4.1	9.2	19.6	34.7	3.8	8.3	14.8	24.9	5.2	9.3	19.0	27.5	4.7	8.9	14.9	23.8	4.7	9.3	19.6	30.3	4.9	9.3	17.4	25.1
Skilled nursing facility																								
% with use	0.1	0.4	1.3	3.8	0.1	0.6	1.6	4.5	0.1	0.5	1.3	2.6	0.2	0.7	1.6	3.7	0.1	0.3	1.0	2.7	0.2	0.5	1.6	3.5
Utilization per 1,000 user months	127.4	133.1	143.4	171.8	147.3	144.7	150.4	194.4	143.3	136.1	154.8	173.9	153.2	147.6	154.3	190.7	116.2	114.6	127.8	170.3	128.2	119.2	137.0	158.4
Utilization per 1,000 eligible months	1.1	4.5	14.0	42.8	1.4	6.0	17.5	51.1	1.6	5.0	14.3	29.2	2.4	7.5	17.8	40.5	1.2	3.6	11.5	30.9	2.1	5.6	17.9	39.1
Hospice																								
% with use	0.0	0.2	0.6	1.8	0.1	0.2	0.7	1.9	0.0	0.2	0.7	1.3	0.1	0.4	0.8	1.6	0.0	0.1	0.4	1.3	0.1	0.3	0.8	2.2
Utilization per 1,000 user months	345.4	410.8	398.3	425.9	387.5	466.4	385.6	357.3	350.7	441.6	406.2	491.3	378.8	427.4	451.7	402.1	338.9	350.5	335.2	364.4	342.6	390.6	376.9	382.6
Utilization per 1,000 eligible months	0.3	1.6	6.4	18.6	0.6	2.6	7.4	19.5	0.5	2.1	7.2	13.7	0.9	3.7	8.8	16.4	0.4	1.2	4.3	13.4	0.7	2.8	8.4	22.7

(continued)

Table A.1-6 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by HCC score

Measures by setting	Baseline period 1 10/1/2011–9/30/2012								Baseline period 2 10/1/2012–9/30/2013								Demonstration period 10/1/2013–12/31/2014							
	Demonstration				Comparison				Demonstration				Comparison				Demonstration				Comparison			
	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+
Non-institutional setting																								
Primary care E&M visits																								
% with use	34.7	51.5	63.4	71.3	34.3	55.0	67.2	74.7	40.6	56.2	65.4	69.4	39.9	59.3	68.7	74.4	42.0	56.0	65.1	67.8	39.9	58.3	69.6	74.2
Utilization per 1,000 user months	624	940	1,335	1,857	626	1,000	1,434	1,997	766	1,077	1,422	1,739	756	1,139	1,520	2,126	796	1,111	1,480	1,771	747	1,120	1,547	2,111
Utilization per 1,000 eligible months	523	888	1,299	1,810	513	950	1,403	1,965	651	1,023	1,378	1,665	639	1,092	1,485	2,090	696	1,059	1,442	1,719	632	1,066	1,515	2,071
Behavioral health visits																								
% with use	19.7	26.8	23.4	19.3	16.0	22.1	18.0	14.0	12.2	16.2	16.6	14.7	10.4	14.2	13.5	12.1	8.6	11.6	12.6	13.0	8.2	11.9	12.2	12.5
Utilization per 1,000 user months	1,008	1,061	925	724	975	1,015	862	626	760	785	755	639	748	802	706	665	791	794	793	785	827	878	840	773
Utilization per 1,000 eligible months	389.7	548.3	466.8	365.6	317.4	452.0	356.6	247.4	257.1	346.8	360.9	296.4	219.8	314.6	280.0	248.9	189.2	258.6	288.0	305.1	173.6	261.5	269.3	257.1
Outpatient therapy (PT, OT, ST)																								
% with use	1.5	3.1	4.8	8.6	1.3	3.7	6.4	9.7	1.6	3.1	4.5	7.3	1.5	3.8	6.2	9.1	1.4	2.5	4.6	6.5	1.4	3.6	6.9	9.7
Utilization per 1,000 user months	1,367	2,198	3,128	4,843	1,957	3,240	4,004	5,708	1,545	2,235	2,975	4,225	2,430	3,424	4,004	4,884	1,368	1,853	3,128	4,857	2,275	3,493	4,752	6,097
Utilization per 1,000 eligible months	105	314	657	1,546	122	512	1,045	2,015	118	318	613	1,239	166	554	1,009	1,670	115	261	680	1,301	173	604	1,406	2,310

(continued)

Table A.1-6 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by HCC score

Measures by setting	Baseline period 1 10/1/2011–9/30/2012								Baseline period 2 10/1/2012–9/30/2013								Demonstration period 10/1/2013–12/31/2014							
	Demonstration				Comparison				Demonstration				Comparison				Demonstration				Comparison			
	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+
Independent therapy (PT, OT, ST)																								
% with use	1.1	1.5	1.2	1.1	0.9	1.8	1.9	1.3	1.0	1.4	1.2	1.0	1.0	1.8	1.7	1.4	0.9	1.4	1.2	1.0	1.0	1.6	1.9	1.3
Utilization per 1,000 user months	2,048	2,225	1,965	2,345	2,535	2,748	2,845	2,569	2,266	2,264	2,047	2,016	2,606	2,661	2,782	2,653	2,325	2,334	2,262	2,251	2,786	2,531	3,078	2,803
Utilization per 1,000 eligible months	104.4	145.8	113.2	110.4	105.3	204.0	217.4	143.4	101.7	137.5	113.9	95.7	108.4	198.2	195.1	144.3	114.9	167.5	141.4	114.4	136.4	203.3	259.4	165.2
Home health episodes																								
% with use	0.5	1.6	4.2	9.3	0.4	1.3	3.8	7.9	0.6	1.5	3.5	7.1	0.6	1.4	3.5	6.7	0.7	1.4	3.3	6.7	0.6	1.3	3.5	6.1
Utilization per 1,000 user months	158.0	171.0	189.0	227.9	141.2	153.0	186.9	223.2	154.6	167.6	196.8	221.5	147.3	156.9	193.0	224.8	244.4	234.6	239.1	297.6	126.1	135.9	169.0	212.4
Utilization per 1,000 eligible months	5.4	16.5	42.2	95.2	4.2	13.3	38.4	80.0	6.2	14.8	35.6	72.8	5.9	14.3	35.5	67.1	10.2	19.9	45.3	91.3	5.8	13.6	34.7	61.9
Durable medical equipment																								
% with use	7.2	16.4	29.1	40.3	7.1	18.3	34.7	48.3	7.3	15.6	27.0	37.0	7.5	18.2	32.7	45.0	6.5	13.5	27.6	36.0	6.5	15.7	30.4	41.0
Utilization per 1,000 user months	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

(continued)

Table A.1-6 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by HCC score

Measures by setting	Baseline period 1 10/1/2011–9/30/2012								Baseline period 2 10/1/2012–9/30/2013								Demonstration period 10/1/2013–12/31/2014							
	Demonstration				Comparison				Demonstration				Comparison				Demonstration				Comparison			
	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+	<1	1–2	2–4	4+
Other hospital outpatient services																								
% with use	30.1	45.0	54.4	62.0	16.9	28.5	36.1	43.6	30.2	43.1	52.7	58.7	17.4	28.0	34.8	41.3	29.0	40.3	52.0	55.1	17.3	27.7	34.3	39.6
Utilization per 1,000 user months	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

— Durable medical equipment and other outpatient services are defined as having any of those services during the eligible month. E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

¹ Includes acute admissions, inpatient rehabilitation, and long-term care hospital admissions.

Note: Utilization for inpatient admissions, inpatient psychiatric admissions, inpatient substance abuse, skilled nursing facility, and hospice are defined as number of admissions during the eligible/user month. Utilization for emergency department (non-admit), emergency department (psychiatric), observation stays, specialist E&M visits, primary care E&M visits, behavioral health visits, home health, and outpatient and independent therapy are defined as the number of visits during the eligible/user month. Durable medical equipment and other outpatient services are defined as having any of those services during the eligible month.

Table A.1-7
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by death

Measures by setting	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	Alive	Died	Alive	Died	Alive	Died	Alive	Died	Alive	Died	Alive	Died
Number of beneficiaries	90,491	1,142	150,043	2,745	69,433	1,184	145,535	3,377	60,821	1,071	143,810	3,897
Institutional setting												
Inpatient admissions ¹												
% with use	3.3	21.0	3.3	20.5	3.0	20.2	3.1	20.8	2.6	16.8	2.9	19.0
Utilization per 1,000 user months	186.8	374.3	183.1	356.7	184.1	385.9	179.7	358.6	158.6	333.9	154.1	317.3
Utilization per 1,000 eligible months	38.7	268.3	38.2	253.0	35.1	250.8	36.2	254.7	30.6	210.0	32.9	232.1
Inpatient psychiatric												
% with use	0.8	1.2	0.7	0.9	0.8	0.9	0.7	0.8	0.7	1.1	0.6	0.8
Utilization per 1,000 user months	163.2	190.1	166.7	206.6	164.4	211.2	165.1	199.3	143.5	202.6	143.4	205.5
Utilization per 1,000 eligible months	8.6	13.2	7.8	9.9	8.3	9.1	7.7	9.2	7.7	12.2	7.0	9.5
Inpatient non-psychiatric												
% with use	2.6	20.2	2.7	19.7	2.3	19.6	2.5	20.2	2.0	15.8	2.3	18.4
Utilization per 1,000 user months	173.3	366.8	170.9	354.6	169.2	379.4	167.1	356.2	143.7	330.6	142.4	309.2
Utilization per 1,000 eligible months	30.1	255.0	30.3	243.0	26.8	241.5	28.4	245.5	22.9	197.8	25.9	222.5
Inpatient dementia												
% with use	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Utilization per 1,000 user months	89.9	0.0	126.3	83.3	125.0	100.0	104.4	1,000.0	87.0	0.0	86.1	106.7
Utilization per 1,000 eligible months	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1
Emergency department use (non-admit)												
% with use	7.8	13.3	7.1	11.3	7.5	12.4	7.0	12.3	7.3	13.4	7.0	12.0
Utilization per 1,000 user months	239.3	315.4	239.7	310.2	235.1	325.8	234.2	339.4	207.3	320.1	213.1	290.5
Utilization per 1,000 eligible months	103.1	174.6	94.7	155.3	98.6	162.8	91.8	167.4	96.3	181.5	92.6	161.0
Emergency department use (psychiatric)												
% with use	0.9	1.6	0.6	0.9	0.9	1.5	0.6	0.9	0.9	2.2	0.5	0.9
Utilization per 1,000 user months	182.1	239.9	161.4	217.8	192.5	330.6	159.5	225.8	172.3	252.7	138.3	185.6
Utilization per 1,000 eligible months	11.1	19.6	7.1	12.0	11.9	22.9	7.0	12.2	12.6	28.5	6.7	11.5

(continued)

Table A.1-7 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by death

Measures by setting	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	Alive	Died	Alive	Died	Alive	Died	Alive	Died	Alive	Died	Alive	Died
Observation stays												
% with use	0.7	1.4	0.6	1.4	0.7	1.7	0.6	1.5	0.7	2.1	0.7	1.7
Utilization per 1,000 user months	118.6	168.3	116.4	157.2	116.3	181.8	116.6	176.4	99.5	137.3	98.9	146.9
Utilization per 1,000 eligible months	7.3	14.5	6.2	14.3	7.3	18.4	6.6	16.2	7.2	21.3	7.1	18.9
Skilled nursing facility												
% with use	0.3	3.8	0.4	4.4	0.3	4.4	0.4	4.6	0.2	3.6	0.4	4.7
Utilization per 1,000 user months	136.6	229.8	148.9	250.8	137.6	253.7	148.8	244.5	115.2	209.6	123.9	210.1
Utilization per 1,000 eligible months	3.5	44.2	4.4	51.4	3.2	49.7	4.8	52.3	2.5	41.7	4.2	52.5
Hospice												
% with use	0.1	8.9	0.1	9.8	0.1	9.6	0.1	9.6	0.0	6.9	0.1	9.8
Utilization per 1,000 user months	468.1	351.0	457.7	354.7	411.4	411.8	470.4	359.8	395.8	327.4	415.6	337.3
Utilization per 1,000 eligible months	0.7	92.8	1.1	105.8	0.6	100.9	1.4	99.7	0.3	70.9	1.1	100.9
Non-institutional setting												
Primary care E&M visits												
% with use	42.0	55.8	42.9	57.4	46.4	55.8	46.9	58.8	48.1	55.0	47.3	61.4
Utilization per 1,000 user months	797.5	1,449.4	828.0	1,439.3	905.5	1,579.9	928.7	1,602.7	950.4	1,553.6	930.2	1,641.8
Utilization per 1,000 eligible months	701.9	1,294.9	718.9	1,323.1	800.6	1,366.3	820.8	1,442.3	861.8	1,390.3	824.5	1,513.9
Behavioral health visits												
% with use	21.9	15.8	17.7	11.8	13.5	12.8	11.6	9.9	9.8	11.2	9.6	8.0
Utilization per 1,000 user months	1,013.2	674.6	971.9	690.1	765.5	684.4	760.6	595.8	792.7	751.1	846.5	654.9
Utilization per 1,000 eligible months	438.5	271.1	354.9	209.5	287.4	246.5	248.0	189.1	218.1	253.0	206.0	167.1
Outpatient therapy (PT, OT, ST)												
% with use	2.3	4.5	2.4	6.1	2.2	4.8	2.4	6.8	2.0	4.9	2.5	6.8
Utilization per 1,000 user months	2,085.7	5,161.2	3,029.8	5,087.4	2,036.8	4,248.7	3,103.3	5,685.5	1,798.3	5,715.9	3,255.7	6,547.5
Utilization per 1,000 eligible months	228.1	840.3	325.2	1,099.9	211.3	725.5	330.0	1,200.0	200.7	957.0	392.5	1,563.0

(continued)

Table A.1-7 (continued)
Proportion and utilization for institutional and non-institutional services for the Massachusetts demonstration and comparison groups, by death

Measures by setting	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	Alive	Died	Alive	Died	Alive	Died	Alive	Died	Alive	Died	Alive	Died
Independent therapy (PT, OT, ST)												
% with use	1.2	0.4	1.3	0.9	1.1	0.5	1.2	0.9	1.1	0.4	1.3	0.9
Utilization per 1,000 user months	2,101.3	2,107.2	2,639.2	4,475.6	2,246.7	2,112.1	2,642.7	2,523.8	2,324.7	2,107.9	2,719.4	2,372.8
Utilization per 1,000 eligible months	116.8	36.7	140.4	130.5	112.2	35.3	137.2	79.0	134.3	38.4	164.2	89.4
Home health episodes												
% with use	1.2	6.4	1.0	4.2	1.1	5.3	1.0	4.6	1.1	4.5	1.0	4.7
Utilization per 1,000 user months	176.3	231.6	164.3	207.7	169.4	226.1	162.2	218.5	244.1	201.0	140.3	200.2
Utilization per 1,000 eligible months	12.6	65.0	10.5	42.1	10.8	53.6	10.5	47.0	16.0	48.2	10.3	47.2
Durable medical equipment												
% with use	11.9	23.2	12.9	24.4	11.0	21.6	12.2	26.1	10.2	21.7	11.0	22.2
Utilization per 1,000 user months	—	—	—	—	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—	—	—	—	—
Other hospital outpatient services												
% with use	36.5	46.4	21.8	33.4	35.3	44.8	21.4	34.9	34.1	43.3	21.5	33.9
Utilization per 1,000 user months	—	—	—	—	—	—	—	—	—	—	—	—
Utilization per 1,000 eligible months	—	—	—	—	—	—	—	—	—	—	—	—

— Durable medical equipment and other outpatient services are defined as having any of those services during the eligible month. E&M = evaluation and management; OT = occupational therapy; PT = physical therapy; ST = speech therapy.

¹ Includes acute admissions, inpatient rehabilitation, and long-term care hospital admissions.

Note: Utilization for inpatient admissions, inpatient psychiatric admissions, inpatient substance abuse, skilled nursing facility, and hospice are defined as number of admissions during the eligible/user month. Utilization for emergency department (non-admit), emergency department (psychiatric), observation stays, specialist E&M visits, primary care E&M visits, behavioral health visits, home health, and outpatient and independent therapy are defined as the number of visits during the eligible/user month. Durable medical equipment and other outpatient services are defined as having any of those services during the eligible month.

Appendix 2
Minimum Data Set Tables by Age, Sex, and Race

Table A.2-1

Annual nursing facility utilization, characteristics, and quality measures of long-stay residents, Massachusetts demonstration and comparison groups, stratified by age group

Measures of long-stay residents	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 1 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	21–44	45+	21–44	45+	21–44	45+	21–44	45+	21–44	45+	21–44	45+
Annual nursing facility utilization												
Weighted number of beneficiaries eligible for admission	24,934	48,544	33,678	61,658	19,230	36,975	32,377	59,564	16,644	33,566	30,285	58,026
New long-stay nursing facility admissions per 1,000 eligibles ¹	1.0	4.5	0.7	5.2	1.0	3.5	0.7	5.0	0.5	4.0	0.4	5.5
Weighted number of beneficiaries eligible for long-stay	25,045	49,805	34,014	65,993	19,319	37,976	32,685	63,657	16,692	34,052	30,595	61,611
Long-stay nursing facility users as % of eligibles ¹	0.6	3.0	1.1	7.0	0.6	3.0	1.0	6.9	0.3	1.8	1.1	6.3
Characteristics of long-stay nursing facility residents												
Weighted number of long-stay beneficiaries	138	1,485	362	4,638	112	1,138	331	4,386	53	614	324	3,867
Functional status (RUG-IV ADL scale)	7.8	6.9	10.7	8.3	7.9	7.0	10.3	8.4	9.3	7.0	10.9	8.4
Percent with severe cognitive impairment ²	33.2	29.5	31.4	32.0	32.6	30.7	28.5	32.5	43.5	26.8	32.9	31.2
Percent with SPMI ³	25.2	36.8	15.2	24.6	25.7	38.6	14.4	25.3	16.8	39.0	15.7	23.7
Percent with low level of care need ⁴	12.2	10.8	5.0	7.9	13.4	10.0	4.4	7.9	2.3	9.6	3.7	7.3
Quality measures for long-stay nursing facility residents												
Weighted quality measure denominator	138	1,485	362	4,638	112	1,138	331	4,386	53	613	324	3,867
Percentage of long-stay residents who were physically restrained	6.1	2.7	2.7	3.0	4.5	2.6	3.3	2.1	0.0	2.9	4.6	2.0
Weighted quality measure denominator	117	1,093	323	3,859	94	804	294	3,652	47	444	298	3,278
Percentage of long-stay residents who got an antipsychotic medication	34.1	40.4	34.6	35.4	31.5	37.7	28.8	31.2	20.3	29.7	27.2	31.5

(continued)

Table A.2-1 (continued)

Annual nursing facility utilization, characteristics, and quality measures of long-stay residents, Massachusetts demonstration and comparison groups, stratified by age group

Measures of long-stay residents	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 1 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	21–44	45+	21–44	45+	21–44	45+	21–44	45+	21–44	45+	21–44	45+
Weighted quality measure denominator	81	909	303	3,423	74	726	279	3,279	42	395	291	2,941
Percentage of long-stay high-risk residents with pressure ulcers	14.8	15.5	19.4	15.0	14.3	14.4	20.5	13.7	11.7	16.0	22.0	14.5
Percentage of long-stay residents who self-report moderate to severe pain	—	—	—	—	—	—	—	—	—	—	—	—
Percentage of long-stay residents experiencing one or more falls with major injury	—	—	—	—	—	—	—	—	—	—	—	—

— Not included in this year's annual report, but planned for future analyses.

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¹ Eligibles refers to beneficiaries who were demonstration-eligible for the corresponding time period. The denominator for the admission rate measure also excludes those who were already residing in a NF at the start of the time period.

² Severe cognitive impairment was defined by a low score on the Brief Interview for Mental Status (BIMS), poor short-term memory, or severely impaired decision-making skills.

³ Serious and persistent mental illness (SPMI) was defined as having an active diagnosis of schizophrenia or bipolar disorder, determined by the Minimum Data Set (MDS) 3.0.

⁴ Low level of care need was defined as users in the reduced physical function Resource Utilization Group (RUG) who required no assistance with late-loss ADLs (bed mobility, transfer, toilet use, eating).

Table A.2-2
Annual nursing facility utilization and characteristics at admission, Massachusetts demonstration and comparison groups, stratified by sex

Measures of long-stay residents at admission	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 1 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Annual nursing facility utilization												
Weighted number of beneficiaries eligible for admission	36,284	37,194	46,610	48,726	28,451	27,755	45,869	46,072	25,498	24,711	43,580	44,730
New long-stay nursing facility admissions per 1,000 eligibles ¹	3.8	2.8	3.8	3.4	2.7	2.6	4.1	2.9	3.4	2.3	4.2	3.3
Characteristics of long-stay nursing facility residents												
Weighted number of long-stay beneficiaries	139	104	175	168	76	71	190	133	86	57	182	148
Functional status (RUG-IV ADL scale)	6.1	6.7	8.0	8.2	6.1	8.6	6.7	8.5	6.7	7.3	8.0	7.1
Percent with severe cognitive impairment ²	15.4	16.6	25.2	26.5	18.2	11.1	29.4	24.8	13.8	18.6	22.0	17.1
Percent with SPMI ³	35.6	38.0	30.7	34.6	22.3	30.1	38.8	24.5	31.5	30.5	22.3	37.8
Percent with low level of care need ⁴	4.7	0.0	3.0	0.9	5.9	0.0	2.3	2.0	3.1	3.1	1.3	5.7

¹ Eligibles refers to beneficiaries who were demonstration-eligible for the corresponding time period. The denominator for the admission rate measure also excludes those who were already residing in a NF at the start of the time period.

² Severe cognitive impairment was defined by a low score on the Brief Interview for Mental Status (BIMS), poor short-term memory, or severely impaired decision-making skills.

³ Serious and persistent mental illness (SPMI) was defined as having an active diagnosis of schizophrenia or bipolar disorder, determined by the Minimum Data Set (MDS) 3.0.

⁴ Low level of care need was defined as users in the reduced physical function Resource Utilization Group (RUG) who required no assistance with late-loss ADLs (bed mobility, transfer, toilet use, eating).

Table A.2-3
Annual nursing facility utilization, characteristics, and quality measures of all long-stay residents, Massachusetts
demonstration and comparison groups, stratified by sex

Measures of long-stay residents	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 1 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Annual nursing facility utilization												
Weighted number of beneficiaries eligible for long-stay	37,078	37,771	49,156	50,851	29,087	28,208	48,335	48,007	25,772	24,972	45,786	46,419
Long-stay nursing facility users as % of eligibles ¹	2.5	1.8	5.5	4.5	2.5	1.9	5.5	4.3	1.4	1.2	5.2	3.9
Characteristics of long-stay nursing facility residents												
Weighted number of long-stay beneficiaries	932	691	2,725	2,274	720	531	2,657	2,059	360	307	2,368	1,823
Functional status (RUG-IV ADL scale)	6.6	7.6	7.8	9.2	6.4	8.0	7.9	9.3	6.9	7.6	8.2	9.1
Percent with severe cognitive impairment ²	30.9	28.4	31.7	32.4	31.6	29.8	32.9	31.3	26.0	30.6	31.6	30.9
Percent with SPMI ³	35.1	36.8	23.4	24.5	37.5	37.2	24.1	25.2	32.9	42.4	21.7	23.2
Percent with low level of care need ⁴	11.6	10.0	9.5	5.5	11.2	8.9	9.7	4.9	9.9	7.9	8.0	5.7
Quality measures for long-stay nursing facility residents												
Weighted quality measure denominator	932	691	2,725	2,274	720	531	2,657	2,059	360	306	2,368	1,822
Percentage of long-stay residents who were physically restrained	2.8	3.2	3.2	2.8	2.7	2.9	2.5	1.8	3.3	2.0	1.7	2.7
Weighted quality measure denominator	693	518	2,261	1,921	515	384	2,193	1,753	275	215	2,013	1,563
Percentage of long-stay residents who got an antipsychotic medication	39.5	40.2	35.8	34.8	38.6	34.8	32.6	29.0	30.3	26.9	32.0	30.1
Weighted quality measure denominator	531	459	1,918	1,808	420	381	1,884	1,673	227	210	1,747	1,485

(continued)

Table A.2-3 (continued)
Annual nursing facility utilization, characteristics, and quality measures of all long-stay residents, Massachusetts demonstration and comparison groups, stratified by sex

Measures of long-stay residents	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 1 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Percentage of long-stay high-risk residents with pressure ulcers	18.1	12.4	16.7	14.0	16.6	12.0	16.3	11.9	15.5	15.6	17.2	12.9
Percentage of long-stay residents who self-report moderate to severe pain	—	—	—	—	—	—	—	—	—	—	—	—
Percentage of long-stay residents experiencing one or more falls with major injury	—	—	—	—	—	—	—	—	—	—	—	—

— Not included in this year's annual report, but planned for future analyses.

¹ Eligibles refers to beneficiaries who were demonstration-eligible for the corresponding time period. The denominator for the admission rate measure also excludes those who were already residing in a NF at the start of the time period.

² Severe cognitive impairment was defined by a low score on the Brief Interview for Mental Status (BIMS), poor short-term memory, or severely impaired decision-making skills.

³ Serious and persistent mental illness (SPMI) was defined as having an active diagnosis of schizophrenia or bipolar disorder, determined by the Minimum Data Set (MDS) 3.0.

⁴ Low level of care need was defined as users in the reduced physical function Resource Utilization Group (RUG) who required no assistance with late-loss ADLs (bed mobility, transfer, toilet use, eating).

Table A.2-4

Annual nursing facility utilization, Massachusetts demonstration and comparison group, stratified by race

Measures of admitted and overall long-stay residents	Baseline period 1 10/1/2011–9/30/2012								Baseline period 2 10/1/2012–9/30/2013								Demonstration period 1 10/1/2013–12/31/2014							
	Demonstration				Comparison				Demonstration				Comparison				Demonstration				Comparison			
	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI	White	African American	Hispanic	Asian/PI
Annual nursing facility utilization																								
Weighted number of beneficiaries eligible for admission	52,411	9,303	7,563	1,338	69,216	21,549	2,130	1,167	38,467	7,802	6,279	1,165	64,475	22,495	2,239	1,344	33,174	7,432	6,248	985	59,102	24,297	2,312	1,193
New long-stay nursing facility admissions per 1,000 eligibles ¹	4.0	2.6	1.0	0.0	4.0	2.8	1.3	1.5	2.7	3.1	1.8	2.4	4.1	2.3	1.3	3.5	3.2	4.0	0.5	0.0	4.1	3.4	0.4	1.4
Weighted number of beneficiaries eligible for long- stay	53,534	9,458	7,594	1,358	72,785	22,548	2,157	1,197	39,365	7,914	6,304	1,180	67,701	23,557	2,272	1,371	33,596	7,490	6,273	992	61,908	25,305	2,332	1,215
Long-stay nursing facility users as % of eligibles ¹	2.5	1.9	0.5	1.6	5.3	4.7	1.5	2.4	2.6	1.8	0.5	1.7	5.2	4.7	1.4	2.2	1.6	1.1	0.4	0.6	4.9	4.2	0.9	1.8

¹ Eligibles refers to beneficiaries who were demonstration-eligible for the corresponding time period. The denominator for the admission rate measure also excludes those who were already residing in a NF at the start of the time period.

Table A.2-5

Characteristics and quality measures of overall long-stay residents, Massachusetts demonstration and comparison groups, stratified by race

Measures of long-stay residents	Baseline period 1 10/1/2011–9/30/2012				Baseline period 2 10/1/2012–9/30/2013				Demonstration period 1 10/1/2013–12/31/2014			
	Demonstration		Comparison		Demonstration		Comparison		Demonstration		Comparison	
	White	African American	White	African American	White	African American	White	African American	White	African American	White	African American
Characteristics of long-stay nursing facility residents												
Weighted number of long-stay beneficiaries	1,341	179	3,845	1,049	1,015	139	3,490	1,109	528	84	3,050	1,060
Functional status (RUG-IV ADL scale)	7.0	6.6	8.4	8.8	7.2	6.6	8.4	8.7	7.1	7.5	8.6	8.7
Percent with severe cognitive impairment ¹	28.9	29.1	30.3	37.2	29.5	29.1	30.3	37.8	27.5	23.4	29.9	34.7
Percent with SPMI ²	36.7	33.6	25.8	17.4	38.3	34.8	26.5	18.8	39.6	29.8	25.0	18.2
Percent with low level of care need ³	11.4	10.2	8.3	5.6	10.2	11.0	7.9	7.0	9.1	9.8	7.1	6.8
Quality measures for long-stay nursing facility residents												
Weighted quality measure denominator	1,341	179	3,845	1,049	1,015	139	3,490	1,109	527	84	3,050	1,059
Percentage of long-stay residents who were physically restrained	3.0	1.7	3.0	3.3	3.0	0.7	2.2	2.1	2.8	1.2	1.8	3.3
Weighted quality measure denominator	999	134	3,186	909	724	102	2,889	956	378	68	2,585	919
Percentage of long-stay residents who got an antipsychotic medication	40.3	39.0	38.0	27.3	37.9	33.4	33.9	23.7	30.3	22.0	34.4	23.2
Weighted quality measure denominator	821	103	2,835	815	652	85	2,586	884	346	54	2,305	858
Percentage of long-stay high-risk residents with pressure ulcers	15.1	22.0	15.2	16.3	14.4	14.3	13.5	15.9	16.0	16.9	15.0	16.3
Percentage of long-stay residents who self-report moderate to severe pain	—	—	—	—	—	—	—	—	—	—	—	—
Percentage of long-stay residents experiencing one or more falls with major injury	—	—	—	—	—	—	—	—	—	—	—	—

— Not included in this year's annual report, but planned for future analyses.

¹ Severe cognitive impairment was defined by a low score on the Brief Interview for Mental Status (BIMS), poor short-term memory, or severely impaired decision-making skills.

² Serious and persistent mental illness (SPMI) was defined as having an active diagnosis of schizophrenia or bipolar disorder, determined by the Minimum Data Set (MDS) 3.0.

³ Low level of care need was defined as users in the reduced physical function Resource Utilization Group (RUG) who required no assistance with late-loss ADLs (bed mobility, transfer, toilet use, eating).