Supplementary Online Content

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

eTable 1. Clinical and Patient Experience Quality Measures

Measure	MEPS Data Source[a]	Reference[b]	Numerator	Denominator[c]
Underuse Clinical Care				
Recommended Cancer Screening				
Cervical cancer screening	SR	33	Papanicolau smear within past 3 years	Women, age 21-65, no hysterectomy
Breast cancer screening	SR	34	Mammogram within past 2 years	Women, age 50-74
Colorectal cancer screening	SR	35	Colonoscopy within past 10 years, sigmoidoscopy within past 5 years, or hemoccult test within past year[d]	Age 50-75
Recommended Diagnostic and Preventive Testing				
Dental care	SR	36	Dental visit within 1 year	All
Blood pressure measurement	SR	37	Blood pressure measurement within 2 years	All
Cholesterol measurement	SR	38	Cholesterol measurement within any interval	Age >= 35
Influenza vaccine	SR	39	Influenza vaccine within 1 year	Age >= 50
Recommended Diabetes Care				
A1c measurement	DCS	40	A1c measurement at least twice yearly	All with diabetes
Foot exam	DCS	40	Foot exam within 1 year	All with diabetes
Eye exam	DCS	40	Retinal exam within 1 year	All with diabetes
Recommended Counseling				
Weight loss counseling	SR	41	Within 1 year	All overweight/obese
Exercise counseling	SR	41	Within 1 year	All overweight/obese
Smoking cessation counseling	SR	42	Within 1 year	All smokers
Recommended Medical Treatment				
Anticoagulation for atrial fibrillation	SR, C, P	43	Anticoagulant prescription	Atrial fibrillation
ACEi/ARB for heart failure	SR, C, P	44	ACEi/ARB prescription	Heart failure
Beta blocker for heart failure	SR, C, P	44	Beta blocker prescription	Heart failure
Salicylates and/or platelet aggregation inhibitors for CAD/MI	SR, C, P	45	Salicylates and/or platelet aggregation inhibitor prescription	CAD/MI
Beta blocker for CAD/MI	SR, C, P	45	Beta blocker prescription	CAD/MI
Statin for CAD/MI	SR, C, P	45	Statin prescription	CAD/MI
Statin for dyslipidemia	SR, C, P		Statin prescription	Dyslipidemia

ACEi/ARB for diabetes & hypertension	SR, C, P	40	ACEi/ARB prescription	Diabetes + hypertension
Statin for CVA	SR, C, P	46	Statin prescription	CVA
Antiplatelet for CVA	SR, C, P	46	Anti-platelet prescription	CVA
Controller medication for poorly controlled asthma	SR, C, P	47	ICS or ICS+LABA	Asthma + systemic steroid in past year
Controller medication for poorly controlled COPD	SR, C, P	48	ICS+LABA or LAMA+LABA or ICS+LAMA+LABA	COPD + systemic steroid in past year
Inappropriate Clinical Care				
Inappropriate Cancer Screening Avoidance				
Cervical cancer screening in older adults	SR	33	Papanicolau smear	Women, Age > 65
Colorectal cancer screening in older adults	SR	35	Colonoscopy, sigmoidoscopy, or hemeoccult test	Age > 75
Prostate cancer screening in older adults	SR	49	Prostate specific antigen test	Men, Age > 75
Inappropriate Antibiotic Use Avoidance				
Antibiotics for acute bronchitis	SR, C, P	17,50,51	Antibiotic prescription during visit	Acute bronchitis visit
Antibiotics for acute URI	SR, C, P	50,51	Antibiotic prescription during visit	Acute URI visit
Antibiotics for influenza	SR, C, P	50	Antibiotic prescription during visit	Influenza visit
Inappropriate Medical Treatment Avoidance				
Inappropriate medications in the elderly	SR, P	52	Anxiolytic, sedative, or hypnotic prescription	Age > 65
Benzodiazepine for depression	SR, P	53	Benzodiazepine prescription	Depression
Opioid for headache	SR, C, P	54	Opioid prescription during visit	Headache visit
Opioid for back pain	SR, C, P	55	Opioid prescription during visit	Back pain visit
NSAID use for hypertension, heart failure, or kidney disease	SR, C, P	56	NSAID prescription	Hypertension, heart failure, or kidney disease
Inappropriate Imaging Avoidance				
MRI/CT for back pain	C	57	MRI/CT within 1 month of visit[e]	Back pain visit
X-ray for back pain	C	57	X-ray within 1 month of visit	Back pain visit

MRI/CT for headache	C	58	MRI/CT during visit	Headache visit
Patient Experience				
Global Rating of Health Care				
Global rating of health care (0="worst" to 10="best")	SAQ	CAHPS	Top-coded 8, 9, or 10[f]	All
Doctor Communication				
Doctor listened to you (1="never" to 4="always")	SAQ	CAHPS	Top-coded 4[e]	All
Doctor explained so you understood (1-4)	SAQ	CAHPS	Top-coded 4[e]	All
Doctor showed respect (1-4)	SAQ	CAHPS	Top-coded 4[e]	All
Doctor spent enough time with you (1-4)	SAQ	CAHPS	Top-coded 4[e]	All
Access to Care				
Got care when ill or injured as soon as wanted (1-4)	SAQ	CAHPS	Top-coded 4[e]	All
Got medical appointment as soon as wanted (1-4)	SAQ	CAHPS	Top-coded 4[e]	All

[a] MEPS combines multiple data sources (see **Methods** for details): C = clinician; DCS = diabetes care survey; P = pharmacy; SAQ = self-administered questionnaire; SR = self-report of household. Please note that the DCS and SAQ are self-report surveys.

[b] Where possible, these references refer to a detailed discussion of the clinical area that supports each measure. The National Quality Forum and other organizations have adopted these discussions to a measure definition with numerators and denominators (eAppendix for further details). Also, because clinical recommendations change over time, we used consistent measure definitions to ensure valid comparison (see **Methods** for details).

[c] See **eAppendix** for details and sensitivity analyses regarding identification of visit types.

[d] From 2009-2013, we were able to extract the numerator as given. From 2002-2008, we were not able to distinguish between colonoscopy and sigmoidoscopy, nor between a 5-year or 10-year screening interval, nor between screening vs diagnostic procedure. The change in phrasing of this question likely follows the change in recommendations.[59]

[e] Most measures recommend a 6 week delay, but the MEPS only consistently separates visits by month.

[f] "Top-coded" indicates that a response was dichotomized as follows: response of 4 on a 1-4 Likert scale or responses of 8, 9, or 10 on a 0-10 Likert scale were counted as positive. For comparison, we present linear measures rescaled 0 to 10 in the supplement (**eFigure 1**).

Abbreviations: A1c, hemoglobin A1c; ACEi, angiotensin converting enzyme inhibitor; ARB, angiotensin receptor blocker; CAD/MI, coronary artery disease / myocardial infarction; CAHPS, Consumer Assessment of Healthcare Providers and Systems; COPD, chronic obstructive pulmonary disease; CT, computed tomography; CVA, cerebral vascular accident; ICS, inhaled corticosteroid; LABA, long-acting beta agonist; LAMA, long-acting muscarinic antagonist; MRI, magnetic resonance imaging; NSAID, nonsteroidal anti-inflammatory drug; URI, upper respiratory infection

Note: This table was copied verbatim from Levine DM, Linder JA, Landon BE. The Quality of Outpatient Care Delivered to Adults in the United States, 2002 to 2013. JAMA Intern Med. 2016;176(12):1778. The references to Figures, Methods, and Appendices refers to the original paper.

eTable 2. Additional Characteristics of the Medical Expenditure Panel Survey Respondents With and Without Primary Care, 2012-2014

	Without propensity score weighting		With propensity score weighting[a]	
	No Primary Care (n = 21133)	Has Primary Care (n = 49286)	No Primary Care (n = 17964)	Has Primary Care (n = 43766)
	% (95% confidence interval)[b]			
ADL HELP[c]	1 (1,1)	3 (3,4)	4 (3,5)	3 (2,3)
iADL HELP[c]	2 (2,2)	6 (6,6)	7 (5,8)	5 (5,5)
FAMILY INCOME AS % OF POVERTY LINE				
Poor/Negative (<100%)	18 (17,19)	11 (10,12)	14 (13,16)	13 (12,14)
Near poor (100%-124%)	5 (5,6)	4 (4,4)	5 (4,5)	5 (4,5)
Low income (125%-199%)	18 (17,18)	13 (12,13)	13 (12,14)	14 (13,14)
Middle income (200%-399%)	31 (30,32)	29 (28,30)	28 (27,30)	30 (29,30)
High income (>=400%)	28 (26,29)	43 (42,44)	40 (37,43)	40 (38,41)
SF-12 PHYSICAL COMPONENT SUMMARY	53 (52,53)	48 (48,49)	49 (48,50)	49 (49,50)
SF-12 MENTAL COMPONENT SUMMARY	52 (52,52)	51 (51,52)	51 (51,52)	52 (51,52)
Chronic diseases, mean number[d]	0.4 (0.3,0.4)	1.4 (1.4,1.4)	1.3 (1.1,1.4)	1.2 (1.1,1.2)
CHRONIC DISEASE				
Hypertension	8 (8,9)	34 (33,35)	28 (25,31)	28 (27,29)
Hyperlipidemia	6 (5,6)	28 (27,29)	22 (19,25)	23 (22,24)
Diabetes	3 (2,3)	13 (13,14)	11 (9,13)	11 (10,11)
Chronic obstructive pulmonary disease	3 (2,3)	7 (7,7)	6 (5,8)	6 (5,6)
CAD/MI	2 (1,2)	8 (8,9)	8 (6,9)	7 (6,7)
Cancer[e]	2 (1,2)	8 (7,8)	7 (5,8)	7 (6,7)
Asthma	3 (2,3)	7 (7,8)	7 (5,8)	6 (6,7)
Arthritis	3 (2,3)	11 (11,12)	12 (10,14)	9 (9,10)

[a] Propensity score weighting adjusted for all variables in **Table 1** and activities of daily living, instrumental activities of daily living, family income as a percent of the poverty line, and the physical and mental components of the short form 12.

[b] Percents weighted to be nationally representative and account for non-response. Percents may not sum to 100 due to rounding.

[c] Three-part screener question to determine if respondent required assistance with ADLs or iADLs

[d] Out of the 20 conditions considered chronic by the Health and Human Services Office of the Assistant Secretary of Health.[32] Select conditions shown.

[e] All, except non-melanoma skin cancer.

Abbreviations: ADLs: activities of daily living; CAD/MI: coronary artery disease / myocardial infarction; COPD: chronic obstructive pulmonary disease; iADLs: instrumental activities of daily living; SF: short form

eTable 3. Propensity-Score Weighted Outpatient Quality and Experience for Patients With Primary Care Versus Those Without Primary Care and No Outpatient Visit, 2012-2014

Measure or Composite	No Primary Care and No Outpatient Visit (n = 3069)		Has Primary Care (n = 43766)		
	n	Mean (95% CI)	n	Mean (95% CI)	Difference[a]
High-Value Cancer Screening Composite	1279	47 (42,52)	28750	78 (77,79)	**31.6 (26.5,36.7)**
Cervical cancer screening	892	66 (59,72)	15756	89 (88,90)	**23.1 (17.1,29.2)**
Breast cancer screening	184	42 (28,56)	9632	80 (79,81)	**38.3 (24.2,52.4)**
Colorectal cancer screening	520	26 (18,34)	17860	66 (65,68)	**40.6 (32.8,48.5)**
High-Value Diagnostic and Preventive Testing Composite	3048	57 (55,60)	43699	80 (79,81)	**22.8 (20.2,25.4)**
Dental checkup	3032	42 (38,46)	43605	65 (64,66)	**22.9 (18.5,27.3)**
Blood pressure measurement	2940	68 (64,72)	43274	95 (94,95)	**26.6 (23.1,30.2)**
Cholesterol measurement	1436	82 (78,87)	31975	96 (96,96)	**13.8 (9.4,18.2)**
Influenza vaccine	547	28 (16,40)	21331	60 (59,62)	**32.2 (19.7,44.6)**
High-Value Diabetes Care Composite	39	30 (8,51)	5419	71 (70,73)	**41.1 (19.4,62.8)**
A1c measurement	28	49 (9,89)	3614	79 (77,81)	28.7 (-11.5,68.9)
Foot exam	38	35 (0,69)	5319	73 (71,74)	**37.6 (2.8,72.4)**
Eye exam	39	19 (0,39)	5367	67 (65,68)	**46.7 (27.3,66)**
High-Value Counseling Composite	2074	32 (27,37)	31533	52 (51,53)	**19.8 (14.4,25.2)**
Weight loss counseling	1927	28 (22,34)	29551	46 (44,47)	**17.6 (11.9,23.4)**
Exercise counseling	1926	34 (28,40)	29584	53 (52,55)	**19.5 (13.8,25.2)**
Smoking cessation counseling	322	33 (24,42)	5654	68 (66,70)	**35.1 (25.7,44.5)**
High-Value Medical Treatment Composite	99	16 (7,24)	17307	43 (42,44)	**26.9 (18,35.8)**
Anticoagulation for atrial fibrillation	7	0 (0,0)	1339	36 (32,39)	*
ACEi/ARB for heart failure	1	*	372	65 (56,75)	*
Beta blocker for heart failure	1	*	372	67 (58,76)	*
Salicylates and/or platelet aggregation inhibitors for CAD/MI	11	10 (-8,28)	3403	30 (28,33)	**20.6 (2.5,38.8)**
Beta blocker for CAD/MI	11	65 (27,102)	3403	60 (57,62)	-5 (-42,32)
Statin for CAD/MI	11	52 (8,96)	3403	64 (62,67)	12.3 (-31.1,55.6)
Statin for dyslipidemia	42	44 (22,66)	11633	73 (72,75)	**29.2 (7.4,51)**
ACEi/ARB for diabetes & hypertension	12	24 (-4,51)	4841	60 (58,63)	**36.6 (9.1,64.1)**
Statin for CVA	3	89 (65,113)	882	57 (52,62)	*
Antiplatelet for CVA	3	0 (0,0)	882	34 (29,38)	*
Controller medication for poorly controlled asthma	3	0 (0,0)	579	59 (53,64)	*
Controller medication for poorly controlled COPD	3	0 (0,0)	555	34 (29,39)	*
Low-Value Cancer Screening Composite	41	75 (-14,164)	6046	49 (47,51)	-26.3 (-115.4,62.8)
Cervical cancer screening in older adults	32	42 (-4,88)	4602	48 (45,50)	5.8 (-39.9,51.5)
Colorectal cancer screening in older adults	19	11 (-6,27)	3240	39 (37,42)	**28.6 (11.7,45.5)**
Prostate cancer screening in older adults	8	36 (-7,79)	1243	71 (67,74)	*

Low-Value Antibiotic Use Composite	0	*	3027	59 (57,62)	*
Antibiotics for acute upper respiratory infection	0	*	2426	64 (62,67)	*
Antibiotics for influenza	0	*	652	37 (32,42)	*
Low-Value Medical Treatment Composite	219	4 (-1,8)	21329	11 (10,11)	**7.2 (2.7,11.7)**
Anxiolytics, sedatives, & hypnotics in the elderly	78	0 (0,0)	8490	9 (8,10)	*
Benzodiazepine for depression	87	1 (-1,2)	4733	10 (9,11)	**9.6 (7.8,11.3)**
Opioid for headache	0	*	676	1 (0,2)	*
Opioid for back pain	0	*	2902	6 (5,7)	*
NSAID use for hypertension, heart failure, or kidney disease	105	9 (-3,21)	15122	15 (14,16)	5.7 (-6.5,17.8)
Low-Value Imaging Composite	0	*	3489	10 (9,11)	*
MRI/CT for back pain	0	*	2902	7 (6,8)	*
X-ray for back pain	0	*	2902	13 (11,14)	*
MRI/CT for headache	0	*	676	9 (6,12)	*
Respondent Experience: Global Rating of Health Care	375	65 (51,79)	32120	79 (78,80)	**14.4 (0.7,28.2)**
Respondent Experience: Doctor Communication Composite	390	56 (43,69)	32433	64 (64,65)	8.3 (-4.7,21.3)
Doctor listened to you	383	57 (45,70)	32139	66 (65,67)	9.1 (-3.5,21.6)
Doctor explained so you understood	389	59 (45,73)	32362	66 (65,67)	6.5 (-7.2,20.3)
Doctor showed respect	382	61 (47,74)	32323	70 (69,70)	8.8 (-4.9,22.5)
Doctor spent enough time with you	385	48 (34,62)	32309	57 (56,58)	8.7 (-5.5,22.9)
Respondent Experience: Access to Care Composite	479	55 (43,66)	31240	59 (58,60)	4.0 (-7.5,15.5)
Got care when ill or injured as soon as wanted	248	56 (36,76)	12561	64 (63,66)	8.5 (-11.2,28.1)
Got medical appointment as soon as wanted	292	51 (40,62)	29221	58 (57,59)	7.1 (-4.1,18.4)

[a]: Positive difference: respondents with primary care received more (high- or low-value) care or had better experience. Negative difference: respondents without primary care received more (high- or low-value) care or had better experience.

*: insufficient sample size

Bold indicates p<0.05.

eTable 4. Health Care Utilization With and Without Primary Care Without Propensity Score Weighting, 2012-2014

	No Primary Care (n = 21133)	Has Primary Care (n = 49286)	Difference[a]
ENCOUNTERS, mean # per year (95% CI)			
Office visits	2.4 (2.2,2.6)	7.5 (7.3,7.7)	**5.1 (4.8,5.3)**
Emergency department visits	0.2 (0.1,0.2)	0.2 (0.2,0.2)	**0.1 (0.1,0.1)**
Hospital admissions	0.1 (0.0,0.1)	0.1 (0.1,0.1)	**0.1 (0.1,0.1)**
PRESCRIBED MEDICINES, mean total fills per year (95% CI)	3.3 (3.0,3.6)	16.4 (16.0,16.9)	**13.1 (12.7,13.6)**
PREVENTIVE VISIT within past year, mean % (95% CI)	40.0 (38.6,41.5)	76.7 (75.9,77.5)	**36.7 (35.1,38.3)**

[a]: Positive difference: respondents with primary care had more utilization. Negative difference: respondents without primary had more utilization.

Note: Health care utilization with propensity score weighting in **Table 2** and for 2002-2004 in **eTable 8**. **Bold** indicates p<0.05.

eTable 5. Outpatient Quality and Experience With and Without Primary Care Without Propensity Score Weighting, 2012-2014

Measure or Composite	No Primary Care (n = 21133)		Has Primary Care (n = 49286)		
	n	Mean (95% CI)	n	Mean (95% CI)	Difference[a]
High-Value Cancer Screening Composite	9931	62.9 (61.2,64.7)	31521	78.8 (77.9,79.6)	**15.8 (14.0,17.7)**
Cervical cancer screening	7125	78.8 (77.2,80.4)	17209	89.4 (88.5,90.3)	**10.6 (8.9,12.3)**
Breast cancer screening	1682	52.5 (48.5,56.6)	10574	81.1 (80.0,82.3)	**28.6 (24.6,32.6)**
Colorectal cancer screening	3886	32.5 (29.9,35.1)	19614	68.1 (66.9,69.4)	**35.6 (32.8,38.4)**
High-Value Diagnostic and Preventive Testing Composite	20842	61.7 (60.7,62.8)	48913	81.8 (81.3,82.3)	**20.1 (19.0,21.1)**
Dental checkup	20751	46.8 (45.2,48.3)	48759	66.7 (65.7,67.7)	**20.0 (18.3,21.6)**
Blood pressure measurement	20061	74.8 (73.5,76.1)	48261	96.2 (95.9,96.4)	**21.4 (20.1,22.6)**
Cholesterol measurement	9948	83.9 (82.6,85.1)	35239	97.0 (96.8,97.3)	**13.2 (11.9,14.4)**
Influenza vaccine	4204	30.3 (28.0,32.6)	23565	62.6 (61.3,63.9)	**32.3 (29.8,34.7)**
High-Value Diabetes Care Composite	554	44.9 (39.9,49.9)	5832	71.5 (70.2,72.7)	**26.6 (21.6,31.5)**
A1c measurement	339	46.4 (38.3,54.6)	3850	78.6 (76.7,80.5)	**32.1 (24.1,40.2)**
Foot exam	542	44.8 (38.2,51.4)	5722	72.9 (71.3,74.5)	**28.1 (21.1,35.1)**
Eye exam	547	43.5 (37.4,49.5)	5770	66.9 (65.0,68.7)	**23.4 (17.4,29.4)**
High-Value Counseling Composite	13629	30.4 (29.2,31.7)	34490	54.5 (53.5,55.4)	**24 (22.5,25.5)**
Weight loss counseling	12589	25.6 (24.2,26.9)	32254	48.9 (47.8,50.0)	**23.3 (21.6,25.1)**
Exercise counseling	12597	32.2 (30.7,33.6)	32287	56.6 (55.6,57.6)	**24.4 (22.8,26)**
Smoking cessation counseling	2420	41.7 (38.9,44.6)	6116	70.1 (68.4,71.8)	**28.4 (25.4,31.4)**
High-Value Medical Treatment Composite	1859	29.4 (26.6,32.2)	19278	43.0 (42.1,43.9)	**13.6 (10.8,16.4)**
Anticoagulation for atrial fibrillation	132	21.7 (11.3,32.2)	1472	36.7 (33.3,40.1)	**15.0 (8.5,21.4)**
ACEi/ARB for heart failure	34	75.2 (60.9,89.6)	419	62.2 (54.4,70.1)	**-13.0 (-20.3,-5.7)**
Beta blocker for heart failure	34	71.6 (53.8,89.3)	419	67.2 (59.5,74.9)	-4.4 (-13.2,4.4)
Salicylates and/or platelet aggregation inhibitors for CAD/MI	290	27.7 (19.3,36.2)	3828	30.8 (28.5,33.1)	3.0 (-5.5,11.6)
Beta blocker for CAD/MI	290	50.9 (42.0,59.9)	3828	59.3 (57.0,61.7)	8.4 (-0.8,17.6)
Statin for CAD/MI	290	51.2 (42.0,60.3)	3828	64.5 (62.4,66.7)	**13.4 (4.0,22.7)**

Statin for dyslipidemia	990	54.7 (50.1,59.3)	12862	73.6 (72.3,74.8)	**18.9 (14.5,23.3)**
ACEi/ARB for diabetes & hypertension	357	53.7 (46.8,60.6)	5452	59.9 (57.5,62.2)	6.1 (-1.1,13.4)
Statin for CVA	83	44.4 (29.3,59.4)	1017	56.5 (51.7,61.2)	**12.1 (4.2,20.0)**
Antiplatelet for CVA	83	23.8 (10.0,37.6)	1017	33.8 (29.6,37.9)	**10.0 (4.5,15.5)**
Controller medication for poorly controlled asthma	53	47.1 (27.8,66.5)	627	59.2 (53.7,64.6)	**12.0 (7.4,16.6)**
Controller medication for poorly controlled COPD	56	31.5 (14.2,48.8)	608	35.7 (30.7,40.6)	4.2 (-0.6,9.0)
Low-Value Cancer Screening Composite	503	34.0 (28.9,39.1)	6705	48.5 (46.7,50.4)	**14.6 (9.6,19.5)**
Cervical cancer screening in older adults	376	33.7 (28.1,39.4)	5085	48.2 (45.9,50.5)	**14.5 (8.9,20.1)**
Colorectal cancer screening in older adults	254	24.7 (17.6,31.8)	3618	38.9 (36.3,41.4)	**14.2 (6.8,21.5)**
Prostate cancer screening in older adults	101	52.8 (39.3,66.3)	1376	70.6 (67.6,73.7)	**17.8 (13.4,22.3)**
Low-Value Antibiotic Use Composite	497	49.9 (44.3,55.5)	3296	58.6 (56.3,61.0)	**8.7 (2.6,14.8)**
Antibiotics for acute upper respiratory infection	351	59.2 (52.3,66.2)	2637	64.0 (61.5,66.6)	4.8 (-2.8,12.4)
Antibiotics for influenza	152	27.4 (18.1,36.8)	715	34.8 (30.0,39.6)	**7.3 (6.3,8.3)**
Low-Value Medical Treatment Composite	3126	10.8 (10.3,11.3)	23688	7.5 (6.3,8.7)	**3.4 (2.1,4.6)**
Anxiolytics, sedatives, & hypnotics in the elderly	801	9.1 (8.1,10.0)	9589	3.6 (1.8,5.3)	**5.5 (3.6,7.4)**
Benzodiazepine for depression	938	10.6 (9.3,11.9)	5159	6.1 (3.8,8.4)	**4.5 (1.9,7.1)**
Opioid for headache	95	0.8 (0.2,1.5)	746	1.9 (-0.7,4.5)	**-1.1 (-1.3,-0.9)**
Opioid for back pain	478	5.9 (4.8,7.0)	3146	5.3 (3.0,7.7)	0.6 (-1.9,3.0)
NSAID use for hypertension, heart failure, or kidney disease	1707	14.5 (13.6,15.3)	16830	11.8 (9.7,13.9)	**2.7 (0.5,4.8)**
Low-Value Imaging Composite		9.9 (8.9,10.8)	3795	11.3 (8.9,13.7)	-1.5 (-4.0,1.1)
MRI/CT for back pain	478	6.9 (5.8,8.0)	3146	7.5 (4.3,10.8)	-0.6 (-4.1,2.8)
X-ray for back pain	478	12.8 (11.4,14.3)	3146	17.5 (13.4,21.5)	**-4.6 (-8.9,-0.3)**
MRI/CT for headache	95	10.0 (7.3,12.7)	746	5.0 (1.0,9.1)	**5.0 (3.6,6.4)**
Respondent Experience: Global Rating of Health Care	6066	67.8 (65.9,69.6)	33770	79.9 (79.2,80.6)	**12.2 (10.3,14.0)**
Respondent Experience: Doctor Communication Composite	6214	56.1 (54.4,57.8)	34138	64.8 (64.1,65.6)	**8.7 (7.0,10.4)**
Doctor listened to you	6093	56.3 (54.4,58.3)	33795	66.5 (65.7,67.3)	**10.1 (8.2,12.1)**
Doctor explained so you understood	6180	58.4 (56.7,60.1)	34041	65.9 (65.1,66.8)	**7.6 (5.7,9.4)**
Doctor showed respect	6156	61.6 (59.7,63.4)	33997	69.9 (69.1,70.7)	**8.3 (6.5,10.2)**
Doctor spent enough time with you	6154	48.6 (46.6,50.6)	33971	57.1 (56.2,58.1)	**8.6 (6.6,10.5)**

Respondent Experience: Access to Care Composite	6510	48.3 (46.6,50.0)	32864	60.0 (59.2,60.8)	**11.7 (9.8,13.5)**
Got care when ill or injured as soon as wanted	3112	49.0 (46.5,51.6)	13367	65.6 (64.4,66.9)	**16.6 (13.9,19.3)**
Got medical appointment as soon as wanted	5049	47.9 (46.0,49.8)	30728	58.7 (57.8,59.6)	**10.8 (8.7,12.9)**

[a]: Positive difference: respondents with primary care received more (high- or low-value) care or had better experience. Negative difference: respondents without primary care received more (high- or low-value) care or had better experience.
Bold indicates p<0.05.

eTable 6. Characteristics of the Medical Expenditure Panel Survey Respondents With and Without Primary Care, 2002-2004

	Without propensity score weighting		With propensity score weighting[a]	
	No Primary Care (n = 17488)	Has Primary Care (n = 49812)	No Primary Care (n = 14758)	Has Primary Care (n = 44201)
AGE, mean years (95% confidence interval)	37.1 (36.8,37.5)	48.1 (47.8,48.5)	46.0 (44.9,47.2)	45.7 (45.3,46.1)
	% (95% confidence interval)[b]			
FEMALE	40 (39,41)	55 (55,56)	54 (52,56)	52 (51,53)
RACE/ETHNICITY				
Non-Hispanic White	56 (54,59)	74 (73,76)	73 (70,75)	72 (70,73)
Hispanic	23 (21,25)	9 (8,10)	11 (10,12)	12 (10,13)
Non-Hispanic Black	14 (12,15)	10 (9,11)	11 (9,12)	11 (10,12)
Non-Hispanic Asian	5 (4,6)	4 (3,4)	4 (3,4)	4 (4,5)
Non-Hispanic Other or Multiple	2 (2,3)	2 (2,2)	2 (1,2)	2 (2,2)
CENSUS REGION				
Northeast	13 (12,14)	21 (19,23)	17 (15,19)	19 (17,20)
Midwest	20 (18,22)	23 (21,25)	23 (21,26)	23 (21,25)
South	41 (38,44)	34 (32,36)	36 (33,40)	36 (34,38)
West	26 (24,28)	22 (20,23)	23 (20,25)	22 (20,24)
PARTNER STATUS				
Married/partnered	44 (43,46)	59 (58,60)	56 (54,59)	56 (55,57)
Never Married	39 (37,40)	20 (19,21)	23 (22,25)	24 (23,25)
Divorced/separated	14 (13,15)	12 (12,13)	13 (12,15)	13 (13,14)
Widowed	3 (3,3)	8 (8,9)	7 (5,9)	7 (7,7)
EDUCATION				
<High school	25 (24,27)	19 (18,20)	19 (18,21)	19 (18,20)
High school/GED/some college	54 (52,55)	55 (54,56)	56 (54,58)	55 (54,56)
Bachelor's degree	14 (13,15)	15 (15,16)	15 (14,17)	15 (15,16)
>Bachelor's	7 (6,8)	10 (10,11)	10 (8,11)	10 (9,10)
HEALTH INSURANCE COVERAGE				
Any private	57 (56,58)	78 (77,78)	73 (70,75)	73 (72,74)
Public only	9 (9,10)	15 (14,16)	15 (13,16)	14 (13,14)
Uninsured	34 (32,35)	7 (7,8)	13 (12,14)	13 (12,14)
PERCEIVED HEALTH STATUS				
Excellent	33 (32,34)	25 (25,26)	27 (25,29)	27 (26,28)
Very good	33 (31,34)	33 (32,33)	33 (31,35)	33 (32,34)
Good	26 (25,27)	27 (27,28)	26 (24,28)	27 (26,27)
Fair	7 (6,7)	11 (10,11)	10 (8,12)	10 (9,10)
Poor	2 (1,2)	4 (4,4)	4 (3,6)	3 (3,4)
EMPLOYED	82 (82,83)	69 (68,70)	71 (68,74)	73 (72,73)
CURRENTLY SMOKE	26 (25,27)	19 (18,19)	22 (21,24)	22 (21,23)

FAMILY INCOME <100% OF FEDERAL POVERTY LINE	16 (15,17)	10 (9,10)	11 (10,12)	11 (10,12)
BODY MASS INDEX, mean kg/m^2	26.5 (26.4,26.6)	27.3 (27.2,27.4)	27.2 (26.7,27.7)	27.1 (27.1,27.2)
CHRONIC DISEASES^c				
0	83 (83,84)	51 (50,52)	58 (55,60)	58 (57,59)
1	13 (12,13)	25 (24,26)	20 (19,21)	23 (22,23)
2	3 (3,3)	13 (13,13)	11 (10,12)	11 (10,11)
>=3	1 (1,1)	11 (10,11)	11 (9,14)	9 (8,9)

[a] Propensity score weighting adjusted for all variables in **Table 1** and activities of daily living, instrumental activities of daily living, family income as a percent of the poverty line, and the physical and mental components of the short form 12.

[b] Percents weighted to be nationally representative and account for non-response. Percents may not sum to 100 due to rounding.

[c] Out of the 20 conditions considered chronic by the Health and Human Services Office of the Assistant Secretary of Health.[32] More detail available in **eTable 8**.

Abbreviation: GED, general educational development
Note: Additional characteristics available in **eTable 7**.

eTable 7. Additional Characteristics of the Medical Expenditure Panel Survey Respondents With and Without Primary Care, 2002-2004

	Without propensity score weighting		With propensity score weighting[a]	
	No Primary Care (n = 17488)	Has Primary Care (n = 49812)	No Primary Care (n = 14758)	Has Primary Care (n = 44201)
	% (95% confidence interval)[b]			
ADL HELP[c]	1 (1,1)	3 (3,3)	4 (2,5)	2 (2,3)
iADL HELP[c]	2 (1,2)	6 (6,6)	6 (4,8)	5 (4,5)
FAMILY INCOME AS % OF POVERTY LINE				
Poor/Negative (<100%)	16 (15,17)	10 (9,10)	11 (10,12)	11 (10,12)
Near poor (100%-124%)	5 (5,6)	4 (4,4)	4 (3,5)	4 (4,4)
Low income (125%-199%)	17 (16,18)	12 (12,13)	13 (12,14)	13 (12,14)
Middle income (200%-399%)	32 (31,33)	31 (31,32)	29 (28,31)	32 (31,32)
High income (>=400%)	30 (28,31)	43 (42,44)	42 (40,45)	40 (39,41)
SF-12 PHYSICAL COMPONENT SUMMARY	52.7 (52.5,52.9)	48.6 (48.4,48.8)	49.2 (48.4,50)	49.7 (49.5,49.9)
SF-12 MENTAL COMPONENT SUMMARY	51.3 (51.1,51.5)	50.9 (50.7,51)	50.8 (50.3,51.3)	51 (50.8,51.1)
Chronic diseases, mean number[d]	0.2 (0.2,0.2)	0.9 (0.9,0.9)	0.8 (0.7,0.9)	0.8 (0.7,0.8)
CHRONIC DISEASE				
Hypertension	4 (4,5)	24 (23,24)	17 (15,19)	20 (19,20)
Hyperlipidemia	2 (2,2)	14 (13,14)	11 (9,13)	12 (11,12)
Depression	7 (7,8)	11 (10,11)	14 (12,16)	10 (9,10)
Diabetes	2 (1,2)	9 (8,9)	7 (5,9)	7 (7,8)
Chronic obstructive pulmonary disease	2 (2,2)	5 (5,6)	5 (4,7)	5 (4,5)
CAD/MI	1 (1,1)	6 (5,6)	5 (3,6)	4 (4,5)
Cancer[e]	1 (1,2)	5 (5,6)	5 (4,6)	4 (4,5)
Asthma	2 (2,2)	5 (5,5)	5 (4,6)	4 (4,4)
Arthritis	0 (0,0)	2 (2,2)	2 (1,3)	2 (1,2)

[a] Propensity score weighting adjusted for all variables in **Table 1** and activities of daily living, instrumental activities of daily living, family income as a percent of the poverty line, and the physical and mental components of the short form 12.

[b] Percents weighted to be nationally representative and account for non-response. Percents may not sum to 100 due to rounding.

[c] Three-part screener question to determine if respondent required assistance with ADLs or iADLs

[d] Out of the 20 conditions considered chronic by the Health and Human Services Office of the Assistant Secretary of Health.[32] Select conditions shown.

[e] All, except non-melanoma skin cancer

Abbreviations: ADLs: activities of daily living; CAD/MI: coronary artery disease / myocardial infarction; COPD: chronic obstructive pulmonary disease; iADLs: instrumental activities of daily living; SF: short form

eTable 8. Health Care Utilization With and Without Primary Care, 2002-2004

	Without propensity score weighting			With propensity score weighting[a]		
	No Primary Care (n = 17488)	Has Primary Care (n = 49812)	Difference[b]	No Primary Care (n = 14758)	Has Primary Care (n = 44201)	Difference[b]
ENCOUNTERS, mean # per year (95% CI)						
Office visits	2.3 (2.2,2.5)	7.0 (6.8,7.2)	**4.6 (4.4,4.9)**	5.3 (4.4,6.1)	6.3 (6.1,6.5)	**1.0 (0.2,1.9)**
Emergency department visits	0.1 (0.1,0.2)	0.2 (0.2,0.2)	**0.1 (0,0.1)**	0.2 (0.2,0.3)	0.2 (0.2,0.2)	0.0 (-0.1,0.0)
Hospital admissions	0.1 (0.0,0.1)	0.1 (0.1,0.1)	**0.1 (0.1,0.1)**	0.1 (0.1,0.1)	0.1 (0.1,0.1)	0.0 (0.0,0.0)
PRESCRIBED MEDICINES, mean total fills per year (95% CI)	2.8 (2.6,3.0)	15.0 (14.6,15.5)	**12.2 (11.8,12.7)**	9.2 (7.9,10.5)	12.9 (12.5,13.3)	**3.7 (2.4,5.0)**
PREVENTIVE VISIT within past year, mean % (95% CI)	33.5 (32.3,34.7)	68.2 (67.3,69.2)		47 (45,50)	64 (63,65)	

[a]: Propensity score weighting adjusted for all variables in **Table 1** and activities of daily living, instrumental activities of daily living, family income as a percent of the poverty line, and the physical and mental components of the short form 12.

[b]: Positive difference: respondents with primary care had more utilization.

Note: Health care utilization for 2012-2014 in **Table 2**.
Bold indicates p<0.05.

eTable 9. Propensity Score Weighted Outpatient Quality and Experience With and Without Primary Care, 2002-2004

Measure or Composite	No Primary Care (n = 14758)		Has Primary Care (n = 44201)		
	n	Mean (95% CI)	n	Mean (95% CI)	Difference[a]
High-Value Cancer Screening Composite	6726	65 (62,67)	27550	76 (75,76)	**10.8 (8.2,13.3)**
Cervical cancer screening	4951	83 (81,85)	15561	91 (91,92)	**8.8 (6.9,10.7)**
Breast cancer screening	1054	66 (60,71)	8670	83 (81,84)	**17.1 (11.9,22.3)**
Colorectal cancer screening	2426	38 (33,43)	15897	53 (51,54)	**14.4 (9.1,19.6)**
High-Value Diagnostic and Preventive Testing Composite	14683	68 (67,69)	44164	78 (77,79)	**9.8 (8.6,11.0)**
Dental checkup	14631	55 (52,57)	44094	64 (63,65)	**9.5 (7.2,11.8)**
Blood pressure measurement	14215	83 (82,84)	43711	94 (93,94)	**10.3 (9.1,11.6)**
Cholesterol measurement	6947	85 (84,86)	31942	92 (92,93)	**7.2 (5.8,8.6)**
Influenza vaccine	2627	40 (34,45)	19591	50 (49,51)	**10.2 (4.6,15.8)**
High-Value Diabetes Care Composite	232	58 (45,71)	4135	70 (68,71)	11.6 (-1.4,24.7)
A1c measurement	189	55 (35,75)	3212	78 (76,80)	**23.4 (3.7,43.0)**
Foot exam	225	64 (51,76)	3973	72 (70,74)	8.5 (-4.0,21.1)
Eye exam	229	55 (39,71)	4095	62 (60,65)	7.0 (-9.4,23.3)
High-Value Counseling Composite	10066	36 (34,38)	31522	47 (46,48)	**10.8 (8.6,12.9)**
Weight loss counseling	8755	32 (30,35)	28251	42 (41,43)	**9.5 (6.9,12.0)**
Exercise counseling	8758	39 (36,41)	28249	47 (47,48)	**8.6 (6.0,11.3)**
Smoking cessation counseling	2948	41 (38,45)	8053	59 (58,61)	**17.7 (14.2,21.2)**
High-Value Medical Treatment Composite	830	37 (32,42)	13641	38 (37,38)	0.5 (-4.4,5.4)
Anticoagulation for atrial fibrillation	78	27 (6,49)	1307	32 (28,36)	**4.7 (0.1,9.3)**
ACEi/ARB for heart failure	13	61 (-169,291)	457	65 (27,103)	**4.0 (1.9,6.0)**
Beta blocker for heart failure	13	33 (-176,241)	457	51 (2,100)	**18.4 (16.5,20.3)**
Salicylates and/or platelet aggregation inhibitors for CAD/MI	138	29 (16,42)	2540	26 (23,28)	-3.6 (-14.8,7.6)
Beta blocker for CAD/MI	138	59 (44,74)	2540	55 (52,58)	-4.2 (-17.0,8.6)
Statin for CAD/MI	138	50 (37,64)	2540	58 (55,60)	7.3 (-3.4,18.1)
Statin for dyslipidemia	273	74 (64,84)	6041	78 (76,79)	3.8 (-6.1,13.7)
ACEi/ARB for diabetes & hypertension	93	75 (63,87)	2659	64 (62,66)	**-11.0 (-18.6,-3.3)**
Statin for CVA	31	24 (3,45)	627	43 (38,49)	*
Antiplatelet for CVA	31	5 (-3,13)	627	27 (22,31)	*
Controller medication for poorly controlled asthma	26	86 (74,98)	511	75 (70,80)	**-10.6 (-10.8,-10.3)**
Controller medication for poorly controlled COPD	18	4 (-6,14)	384	37 (31,43)	*
Low-Value Cancer Screening Composite	401	39 (28,49)	6260	53 (52,55)	**14.7 (4.2,25.1)**
Cervical cancer screening in older adults	305	43 (31,55)	4815	61 (59,63)	**18.1 (5.9,30.2)**
Colorectal cancer screening in older adults	196	23 (11,35)	3613	32 (29,34)	9.0 (-3.0,21.0)
Prostate cancer screening in older adults	82	51 (23,79)	1256	72 (69,75)	**21.7 (21.1,22.3)**
Low-Value Antibiotic Use Composite	406	50 (38,63)	3898	56 (54,58)	**5.6 (-6.9,18.1)**
Antibiotics for acute upper respiratory infection	357	51 (38,65)	3499	58 (55,60)	6.0 (-7.9,20.0)

Measure					
Antibiotics for influenza	53	43 (23,63)	435	42 (36,48)	*
Low-Value Medical Treatment Composite	2078	6 (4,9)	19764	8 (8,9)	2.0 (-0.6,4.5)
Anxiolytics, sedatives, & hypnotics in the elderly	6 (1,11)	599	8346	7 (6,8)	0.9 (-4.3,6.1)
Benzodiazepine for depression	6 (0,12)	736	4593	9 (8,11)	3.6 (-2.6,9.8)
Opioid for headache	2 (-1,5)	75	818	1 (0,2)	**-0.9 (-1.0,-0.9)**
Opioid for back pain	1 (0,2)	418	3258	3 (2,4)	**1.8 (0.5,3.1)**
NSAID use for hypertension, heart failure, or kidney disease	10 (6,14)	699	11293	13 (12,14)	2.9 (-1.2,7.0)
Low-Value Imaging Composite	485	16 (10,22)	3967	14 (13,15)	-4.8 (-10.9,1.3)
MRI/CT for back pain	418	7 (2,13)	3258	6 (5,7)	-1.3 (-7.0,4.4)
X-ray for back pain	418	23 (11,35)	3258	17 (15,19)	-6.0 (-18.0,6.1)
MRI/CT for headache	75	21 (2,41)	818	9 (7,11)	**-12.5 (-13.7,-11.2)**
Respondent Experience: Global Rating of Health Care	5463	67 (64,70)	34711	75 (74,75)	**7.6 (4.8,10.5)**
Respondent Experience: Doctor Communication Composite	5529	48 (46,51)	34901	58 (57,58)	**9.3 (6.5,12.1)**
Doctor listened to you	5452	46 (43,50)	34663	59 (58,60)	**12.5 (9.3,15.6)**
Doctor explained so you understood	5475	53 (50,56)	34778	60 (60,61)	**7.5 (4.3,10.8)**
Doctor showed respect	5487	52 (49,55)	34804	62 (61,63)	**10.1 (6.9,13.3)**
Doctor spent enough time with you	5484	42 (39,45)	34768	49 (48,50)	**7.3 (4.0,10.6)**
Respondent Experience: Access to Care Composite	5822	46 (43,48)	33322	51 (50,52)	**5.3 (2.6,8.0)**
Got care when ill or injured as soon as wanted	2847	56 (52,59)	14046	60 (59,61)	**4.6 (1.0,8.1)**
Got medical appointment as soon as wanted	4645	43 (39,46)	31015	48 (48,49)	**5.8 (2.2,9.3)**

[a]: Positive difference: respondents with primary care received more (high- or low-value) care or had better experience. Negative difference: respondents without primary care received more (high- or low-value) care or had better experience.

*: insufficient sample size

Bold indicates p<0.05.

eTable 10. Outpatient Quality and Experience Without Propensity Score Weighting With and Without Primary Care, 2002-2004

Measure or Composite	No Primary Care (n = 17488)		Has Primary Care (n = 49812)		Difference[a]
	n	Mean (95% CI)	n	Mean (95% CI)	
High-Value Cancer Screening Composite	7720	62 (60,63)	30415	75 (75,76)	**13.8 (12.1,15.5)**
Cervical cancer screening	5656	79 (77,81)	17207	92 (91,93)	**13.1 (11.5,14.6)**
Breast cancer screening	1220	51 (48,55)	9616	83 (82,84)	**32.0 (28.4,35.6)**
Colorectal cancer screening	2829	23 (21,25)	17581	53 (52,55)	**30.6 (27.9,33.3)**
High-Value Diagnostic and Preventive Testing Composite	17292	60 (59,61)	49489	80 (79,80)	**19.9 (19.0,20.8)**
Dental checkup	17201	47 (45,48)	49362	66 (65,67)	**19.1 (17.8,20.5)**
Blood pressure measurement	16595	73 (72,74)	48851	95 (95,95)	**21.7 (20.6,22.9)**
Cholesterol measurement	8074	74 (73,76)	35291	94 (93,94)	**19.3 (18.0,20.6)**
Influenza vaccine	3072	22 (20,24)	21714	52 (50,53)	**29.6 (27.2,31.9)**
High-Value Diabetes Care Composite	263	46 (39,52)	4432	70 (69,72)	**24.4 (17.5,31.3)**
A1c measurement	212	48 (40,56)	3437	78 (77,80)	**30.5 (21.9,39.0)**
Foot exam	255	46 (38,54)	4253	72 (71,74)	**26.5 (17.7,35.3)**
Eye exam	260	42 (33,50)	4390	63 (61,65)	**21.3 (12.6,30.1)**
High-Value Counseling Composite	11320	24 (23,25)	34308	50 (50,51)	**26.7 (25.5,27.9)**
Weight loss counseling	9894	19 (18,21)	30741	45 (44,46)	**25.8 (24.5,27.2)**
Exercise counseling	9893	24 (23,26)	30739	51 (50,52)	**26.6 (25.2,27.9)**
Smoking cessation counseling	3147	31 (29,33)	8514	63 (62,64)	**32.1 (29.8,34.4)**
High-Value Medical Treatment Composite	1000	28 (25,31)	15263	38 (37,39)	9.6 (6.4,12.9)
Anticoagulation for atrial fibrillation	91	14 (3,24)	1444	32 (29,36)	**18.7 (15.3,22.1)**
ACEi/ARB for heart failure	17	57 (30,84)	549	64 (59,70)	**7.8 (6.1,9.5)**
Beta blocker for heart failure	17	34 (8,61)	549	49 (42,56)	**14.7 (13.1,16.3)**
Salicylates and/or platelet aggregation inhibitors for CAD/MI	161	22 (13,31)	2908	25 (23,27)	3.2 (-5.5,11.8)
Beta blocker for CAD/MI	161	50 (40,59)	2908	54 (51,57)	4.3 (-5.4,14.0)
Statin for CAD/MI	161	37 (27,47)	2908	57 (54,59)	**20.0 (9.9,30.2)**
Statin for dyslipidemia	328	67 (61,73)	6608	78 (77,80)	**11.3 (5.1,17.4)**
ACEi/ARB for diabetes & hypertension	114	58 (47,70)	3012	64 (61,66)	5.1 (-2.2,12.4)
Statin for CVA	40	15 (3,27)	724	43 (38,49)	**28.3 (27.6,29.1)**
Antiplatelet for CVA	40	4 (0,9)	724	27 (23,32)	**22.8 (21.6,24.0)**
Controller medication for poorly controlled asthma	30	69 (52,86)	561	75 (70,79)	**5.6 (5.3,5.9)**
Controller medication for poorly controlled COPD	20	10 (-5,25)	423	38 (32,43)	*
Low-Value Cancer Screening Composite	462	31 (26,37)	6921	53 (52,55)	**21.9 (16.5,27.4)**
Cervical cancer screening in older adults	342	33 (26,39)	5323	61 (59,63)	**28.3 (21.7,34.9)**
Colorectal cancer screening in older adults	235	20 (13,28)	4014	32 (30,34)	**11.7 (4.1,19.4)**
Prostate cancer screening in older adults	98	43 (31,55)	1375	73 (70,76)	**30.0 (23.2,36.9)**
Low-Value Antibiotic Use Composite	457	53 (46,59)	4247	56 (54,58)	3.3 (-3.1,9.7)
Antibiotics for acute upper respiratory infection	400	55 (49,62)	3813	58 (56,60)	2.2 (-4.6,8.9)
Antibiotics for influenza	62	34 (20,48)	471	42 (36,47)	*
Low-Value Medical Treatment Composite	2408	4 (3,5)	22045	9 (8,9)	**4.7 (3.7,5.8)**
Anxiolytics, sedatives, & hypnotics in the elderly	706	3 (1,5)	9399	7 (7,8)	**4.1 (1.7,6.6)**
Benzodiazepine for depression	845	2 (1,4)	5096	10 (8,11)	**7.3 (5.6,9.0)**
Opioid for headache	87	2 (-1,5)	907	1 (0,1)	-1.4 (-1.5,-1.4)

Opioid for back pain	463	2 (0,3)	3512	3 (2,4)	1.2 (-0.3,2.8)
NSAID use for hypertension, heart failure, or kidney disease	841	9 (6,11)	12671	13 (12,13)	**3.7 (1.4,6.1)**
Low-Value Imaging Composite	542	12 (10,14)			-1.0 (-3.4,1.4)
MRI/CT for back pain	463	6 (3,8)	3512	6 (5,7)	0.3 (-2.4,3.0)
X-ray for back pain	463	18 (14,23)	3512	17 (15,18)	-1.5 (-6.0,3.0)
MRI/CT for headache	87	11 (4,18)	907	9 (7,11)	**-2.1 (-2.9,-1.3)**
Respondent Experience: Global Rating of Health Care	5844	63 (62,65)	36486	75 (75,76)	**11.9 (10.2,13.7)**
Respondent Experience: Doctor Communication Composite	5930	48 (46,50)	36723	58 (57,58)	**9.8 (8.2,11.4)**
Doctor listened to you	5829	48 (46,50)	36440	59 (58,60)	**11.2 (9.5,12.9)**
Doctor explained so you understood	5863	52 (51,54)	36580	60 (60,61)	**8.0 (6.1,9.9)**
Doctor showed respect	5871	52 (50,54)	36601	62 (61,63)	**9.9 (8.2,11.7)**
Doctor spent enough time with you	5869	40 (38,42)	36560	50 (49,50)	**9.7 (7.9,11.6)**
Respondent Experience: Access to Care Composite	6227	42 (40,44)	35035	52 (51,53)	**9.8 (8.1,11.5)**
Got care when ill or injured as soon as wanted	3069	47 (45,49)	14910	61 (60,62)	**14.4 (11.8,17)**
Got medical appointment as soon as wanted	4980	40 (38,42)	32595	49 (48,50)	**8.8 (6.7,10.9)**

[a]: Positive difference: respondents with primary care received more (high- or low-value) care or had better experience. Negative difference: respondents without primary care received more (high- or low-value) care or had better experience.

*: insufficient sample size

Bold indicates p<0.05.