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. Descriptions of Health Care Data and Information Set Quality Measures

Measure	Type of Measure	Description
Comprehensive diabetes care		
Annual HbA1c testing	Process	Percentage of members 18 to 75 years of age with diabetes who had a hemoglobin A1c (HbA1c) test performed during the measurement year.
HbA1c >9%	Outcome	Percentage of members 18 to 75 years of age with diabetes whose most recent hemoglobin A1c (HbA1c) level is greater than 9.0% (poorly controlled).
Retinal exam performed	Process	Percentage of members 18 to 75 years of age with diabetes who had an eye screening for diabetic retinal disease.
Annual LDL-C screening	Process	Percentage of members 18–75 years of age with diabetes who had LDL-C screening
LDL-C control <100mg/dL	Outcome	Percentage of members 18–75 years of age with diabetes (type 1 and type 2) who had LDL-C control (<100 mg/dL)
Nephropathy screening	Process	Percentage of members 18 to 75 years of age with diabetes who had a nephropathy screening test or evidence of nephropathy.
Blood pressure control <140/90 mm Hg	Outcome	Percentage of members 18 to 75 years of age with diabetes whose most recent blood pressure (BP) reading is less than 140/90 mm Hg during the measurement year.
Cardiovascular care		
LDL-C testing after coronary event	Process	Percentage of members 18 through 75 years of age who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG), or percutaneous coronary interventions (PCI) from January 1 through November 1 of the year prior to the measurement year, *or* who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to the measurement year, who had low-density lipoprotein cholesterol (LDL-C) screening performed during the measurement year.

eTable 1. Descriptions of Health Care Data and Information Set Quality Measures (Continued)

Measure	Type of Measure	Description
Cardiovascular care		
LDL-C <100 mg/dL after coronary event	Outcome	This measure is used to assess the percentage of members 18 through 75 years of age who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG), or percutaneous coronary interventions (PCI) from January 1 through November 1 of the year prior to the measurement year, *or* who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to the measurement year, who had each of the following during the measurement year: • Low-density lipoprotein cholesterol (LDL-C) screening performed • LDL-C control (less than 100 mg/dL)
Blood pressure control <140/90 mmHg in hypertension	Outcome	Percentage of members 18 to 85 years of age who had a diagnosis of hypertension and whose blood pressure (BP) was adequately controlled during the measurement year based on the following criteria: • Members 18 to 59 years of age whose BP was less than 140/90 mm Hg • Members 60 to 85 years of age with a diagnosis of diabetes whose BP was less than 140/90 mm Hg • Members 60 to 85 years of age without a diagnosis of diabetes whose BP was less than 150/90 mm Hg
Beta-blocker treatment after myocardial infarction	Process	Percentage of members 18 years of age and older during the measurement year who were hospitalized and discharged from July 1 of the year prior to the measurement year to June 30 of the measurement year with a diagnosis of acute myocardial infarction (AMI) and who received persistent beta-blocker treatment for six months after discharge.
Appropriate drug use		
Receipt of 1 or more high-risk-medications	Process	Percentage of members 66 years of age and older who received at least one high-risk medication.

eTable 1. Descriptions of Health Care Data and Information Set Quality Measures (Continued)

Measure	Type of Measure	Description
Appropriate drug use		
Use of disease-modifying anti-rheumatic drug therapy	Process	Percentage of members who were diagnosed with rheumatoid arthritis and who were dispensed at least one ambulatory prescription for a disease modifying anti-rheumatic drug (DMARD).
Use of systemic corticosteroid in COPD exacerbation	Process	Percentage of chronic obstructive pulmonary disease (COPD) exacerbations for members 40 years of age and older who had an acute inpatient discharge or emergency department (ED) visit between January 1 and November 30 of the measurement year and who were dispensed a systemic corticosteroid within 14 days of the event.
Use of bronchodilator therapy in COPD exacerbation	Process	Percentage of chronic obstructive pulmonary disease (COPD) exacerbations for members 40 years of age and older who had an acute inpatient discharge or emergency department (ED) visit on or between January 1 and November 30 of the measurement year and who were dispensed a bronchodilator within 30 days of the event.
Cancer screening		
Colorectal cancer screening	Process	Percentage of patients 50 to 75 years of age who had appropriate screening for colorectal cancer
Breast cancer screening	Process	Percentage of women 50 to 74 years of age who had a mammogram to screen for breast cancer

eTable 2. Performance Rates for Hispanic Medicare Advantage Enrollees by Residence in Puerto Rico and the 5 States With the Highest Population of Hispanic Enrollees

	PR	CA	AZ	FL	NY	TX
Comprehensive diabetes care						
Annual HbA1c testing (N=22,789)	84.5	92.9[b]	93.3[b]	93.1[b]	91.2[b]	90.9[b]
HbA1c >9% (N=22,788)	47.5	21.1[b]	25.4[b]	17.9[b]	29.4[b]	39.9[b]
Retinal eye exam (N=22,718)	55.0	70.9[b]	65.2[b]	65.5[b]	71.6[b]	57.0
Annual LDL-C testing (N=23,074)	90.9	91.1	89.3	95.0[b]	91.3	89.0[b]
LDL-C <100 mg/dL (N=23,073)	36.5	56.4[b]	53.3[b]	55.6[b]	52.7[b]	46.9[b]
Nephropathy screening (N=25,368)	87.5	94.0[b]	93.6[b]	91.2[b]	91.9[b]	93.2[b]
Blood pressure control <140/90 mm Hg (N=18,138)	56.4	60.8[b]	60.7[b]	53.1[b]	58.4	53.7[a]
Cardiovascular care						
LDL-C testing after coronary event (N=17,071)	91.6	96.2[b]	89.4	95.7[b]	94.7[b]	90.7
LDL-C <100 mg/dL after coronary event (N= 17,071)	37.5	77.1[b]	56.8[b]	56.0[b]	55.0[b]	53.0[b]
Blood pressure control <140/90 mmHg in hypertension (N= 14,268)	56.1	62.3[b]	61.0[b]	65.6[b]	60.9[b]	56.7
Beta-blocker treatment after myocardial infarction (N=4,299)	78.4	89.1[b]	85.5[a]	90.3[b]	89.7[b]	79.6
Appropriate drug use						
Receipt of 1 or more high-risk-medications (N=926,799)	24.2	14.8[b]	20.6[b]	25.7[b]	15.9[b]	22.1[b]
Use of disease-modifying anti-rheumatic drug therapy (N=13,440)	40.0	75.4[b]	76.7[b]	66.1[b]	68.4[b]	66.0[b]
Use of systemic corticosteroid in COPD exacerbation (N=4,743)	37.7	64.3[b]	62.9[b]	59.3[b]	62.2[b]	52.2[b]
Use of bronchodilator therapy in COPD exacerbation (N=4,743)	52.9	82.3[b]	80.6[b]	79.9[b]	79.2[b]	68.0[b]
Cancer screening						
Colorectal (N=16,513)	59.0	60.8	52.4[b]	62.2[a]	60.4	45.0[b]
Breast (N=84,343)	72.3	85.5[b]	73.7	84.7[b]	78.9[b]	70.1[b]

Abbreviations: HbA1c, glycosylated hemoglobin; LDL-C, low-density lipoprotein cholesterol; mg/dL, milligrams per deciliter; mmHG, millimeters of mercury; COPD, chronic obstructive pulmonary disease; PR, Puerto Rico; CA, California; AZ, Arizona; FL, Florida; NY, New York; TX, Texas.

[a] indicates the rate for Hispanic enrollees in PR and the corresponding group is significantly different at $p<.05$

[b] indicates the rate for Hispanic enrollees in PR and the corresponding group is significantly different at $p<.01$

eTable 3. Performance Rates for US White, US Hispanic, and Puerto Rican Hispanic Enrollees in For-Profit Medicare Advantage Plans

Performance rates for-profit MA plans (%)			
	US whites	US Hispanics	Hispanics in Puerto Rico
Comprehensive diabetes care			
Annual HbA1c testing (N= 103,088)	91.6	92.0	84.5[d]
HbA1c >9% (N= 103,033)	27.9	27.7	47.5[d]
Retinal eye exam (N= 102,793)	63.7	65.2[b]	55.0[d]
Annual LDL-C testing (N= 103,546)	88.1	90.1[b]	90.9
LDL-C <100 mg/dL (N= 103,491)	51.8	52.0	36.5[d]
Nephropathy screening (N= 105,667)	89.1	92.7[b]	87.5[d]
Blood pressure control <140/90 mmHg (N= 95,014)	58.2	56.9[a]	56.4
Cardiovascular care			
LDL-C testing after coronary event (N= 75,343)	89.3	92.2[b]	91.6
LDL-C <100 mg/dL after coronary event (N= 75,343)	58.3	56.2[b]	37.5[d]
Blood pressure control <140/90 mmHg in hypertension (N= 88,573)	63.5	60.7[b]	56.1[d]
Beta-blocker treatment after myocardial infarction (N= 21,684)	88.1	86.3[a]	78.4[d]
Appropriate drug use			
Receipt of 1 or more high-risk-medications (N= 4,700,777)	18.2	21.3[b]	24.2[d]
Use of disease-modifying anti-rheumatic drug therapy (N= 56,266)	74.5	68.3[b]	39.9[d]
Use of systemic corticosteroid in COPD exacerbation (N= 36,907)	66.9	59.7[b]	37.7[d]
Use of bronchodilator therapy in COPD exacerbation (N= 36,907)	75.0	77.7[a]	52.9[d]
Cancer screening			
Colorectal (N=158,646)	60.3	53.7[b]	59.0[d]
Breast (N= 418,452)	70.6	76.2[b]	72.3[d]

Abbreviations: HbA1c, glycosylated hemoglobin; LDL-C, low-density lipoprotein cholesterol; mg/dL, milligrams per deciliter; mmHG, millimeters of mercury; COPD, chronic obstructive pulmonary disease.

[a] indicates the difference in the rate for white enrollees vs. that of Hispanic enrollees in the US is significant at $p<0.05$

[b] indicates the difference in the rate for white enrollees vs. that of Hispanic enrollees in the US is significant at $p<0.01$

[c] indicates the difference in the rate for Hispanic enrollees in the US vs. that of Hispanic enrollees in Puerto Rico is significant at $p<0.05$

[d] indicates the difference in the rate for Hispanic enrollees in the US vs. that of Hispanic enrollees in Puerto Rico is significant at $p<0.01$

eFigure. Flow Chart of the Study Sample

Healthcare Effectiveness Data and Information Set (HEDIS) for Medicare Advantage (MA) plans
9,423,330 MA enrollees who were eligible for at least one of the 17 HEDIS measures

Excluded:
93,558 enrollees who could not be matched with the Medicare Master Beneficiary Summary File
170,576 enrollees who could not be matched to obtain Census demographic information
621,094 enrollees who were <65 years of age
214 enrollees whose residence was not in the mainland US or Puerto Rico
1,185,484 enrollees who resided in the mainland US but did not self-identify as Hispanic or non-Hispanic white

7,352,404 MA enrollees from 471 plans who were >=65 years of age and who resided in the US or Puerto Rico at the time of data collection

Excluded:
528 enrollees who resided in Puerto Rico but did not self-identify as Hispanic
447 enrollees who resided in Puerto Rico but were enrolled in a MA plan based in the US mainland

Final analytic sample:

6,289,374 non-Hispanic white MA enrollees residing in the mainland US

795,039 Hispanic MA enrollees residing in the mainland US

267, 016 Hispanic MA enrollees residing in Puerto Rico and enrolled in MA plans in Puerto Rico