

Supplementary Online Content

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eAppendix. Methods.

eFigure 1. Flow Chart Showing the Selection of Study Participants.

eFigure 2. Trends in the Use of Brand vs Generic Statins, MEPS 2002-2013.

eFigure 3. Trends in Specific Statin Use and Corresponding Number of Prescriptions in the General Adult Population, MEPS 2002-2013.

eFigure 4. Trends in Total Expenditures on Statins by Risk Group, MEPS 2002-2013.

eFigure 5. Trends in Total Out-of-Pocket Expenditures on Statins by Risk Group, MEPS 2002-2013.

eFigure 6. Average Expenditures on Statins Among Statin Users in the General Adult Population, MEPS 2002-2013.

eTable 1. ICD-9-CM Codes of Diseases, MEPS 2002-2013.

eTable 2. Characteristics of US Adults Aged 40 and Older Who Used Any Statins Over a 12-Year Period, MEPS 2002-2013.

eTable 3. Characteristics of US Adults Aged 40 and Older Who Did Not Use Any Statin Over a 12-Year Period, MEPS 2002-2013.

eTable 4. Variation in Trends in Any Statin Use Among ASCVD and Non-ASCVD US Adults, MEPS 2002-2013.

eTable 5. Odds Ratios for the Use of Statins Among Adults With and Without ASCVD, MEPS 2002-2013.

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

eAppendix. Methods

Medical Expenditure Panel Survey Prescribed Medicine Data Collection and Accuracy

The Medical Expenditure Panel Survey (MEPS) is a nationally representative source of data on healthcare resource utilization and expenditures sponsored by the Agency for Healthcare Research and Quality (AHRQ). MEPS comprises of the Household Components (HC) and the Medical Provider Component (MPC). Information on prescription medications were mostly collected from individuals and families during the household surveys, and other information were obtained from dispensing pharmacy.

Data Collection Procedure

At each HC interview, the household respondent supplies information on any prescribed medicine that family members obtained as part of a visit to an inpatient stay, emergency room, hospital outpatient clinic or dentist's office and subsequently filled. The details supplied include the drug name, number of times it was obtained, the health condition it was prescribed for, the year and month it was first used, and whether free samples of the drug were received. Some payment information was obtained during the HC interview. This includes the third-party payer and the amount paid out-of-pocket.

Respondents were then asked to identify the names, addresses, and types of pharmacies that filled each prescriptions, along with permission for MEPS to contact the pharmacies and acquire data from them. Signed authorizations allow pharmacies to respond to the Pharmacy Component (PC) of MEPS, which is a subset of the MPC. In 2011, for example, 69.7% of HC respondents granted permission to contact pharmacies, and 73.3% of pharmacies responded¹. The PC collects detailed information via telephone, fax, or mail from the pharmacies about the drugs obtained,

¹ Methodology Report #29 – Outpatient Prescription Drugs: Data Collection and Editing in the 2011 Medical Expenditure Panel Survey.

including payments (the sum of which is the price), payers, date each prescription was filled, quantity dispensed, the National Drug Code (NDC), and precise drug attributes. The reason for the PC is to collect information that pharmacies can more easily and accurately provide than household respondents, since some HC respondents lack adequate documentations about payments (especially when third party payers are involved), and they may also lack detailed knowledge of their medications, such as the number or strength of pills.

Handling Missing Data

Occasionally, even for respondents who granted written permission for MEPS to contact their supplying pharmacy, some information is missing and must be imputed. If the NDC is imputed and the quantity is missing, then the quantity is taken from the same acquisition that donated the NDC. Otherwise, matching software imputes a quantity from another acquisition. Match variables include the NDC; active ingredients, dosage form, and strength; and characteristics of the person reported in the HC (age, sex, health conditions, and health status). Exact matching on the drug is required, and heavier weight is placed on the NDC, followed by the dosage form and strength. In the 2011 data, the quantity dispensed was imputed for 0.7 percent of the 252,176 acquisition. If the pharmacy does not provide the NDC, the PC asks instead for the medication name, dosage form, strength, strength unit. With that, the drug can be characterized.

When the pharmacy does not identify a third-party payer, information from the HC about insurance coverage and usual third-party payer can usually indicate the type of payer. Other missing pharmacy expenditure information for a person's drug are imputed from the pharmacy data for another person's purchase of similar drug². Even when payment data appear to be

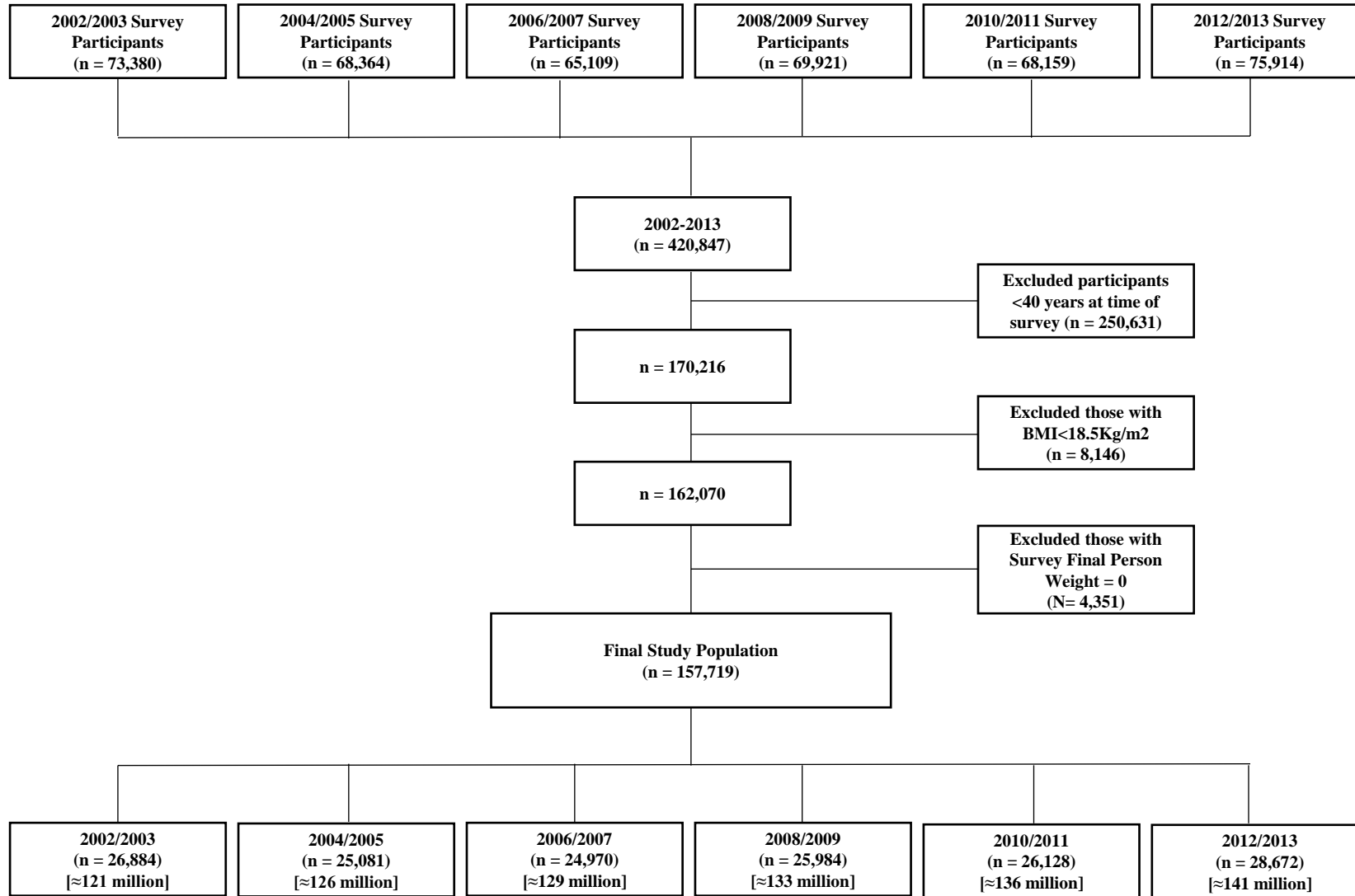
² Hill, S. C., Zuvekas, S. H., & Zodet, M. W. (2011). Implications of the accuracy of MEPS prescription drug data for health services research. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*, 48(3), 242-259.

complete, MEPS attempts to detect inaccurate payment data by comparing an acquisition's price to a price provided in the Wolters Kluwer's Master Drug Data Base (MDDDB).

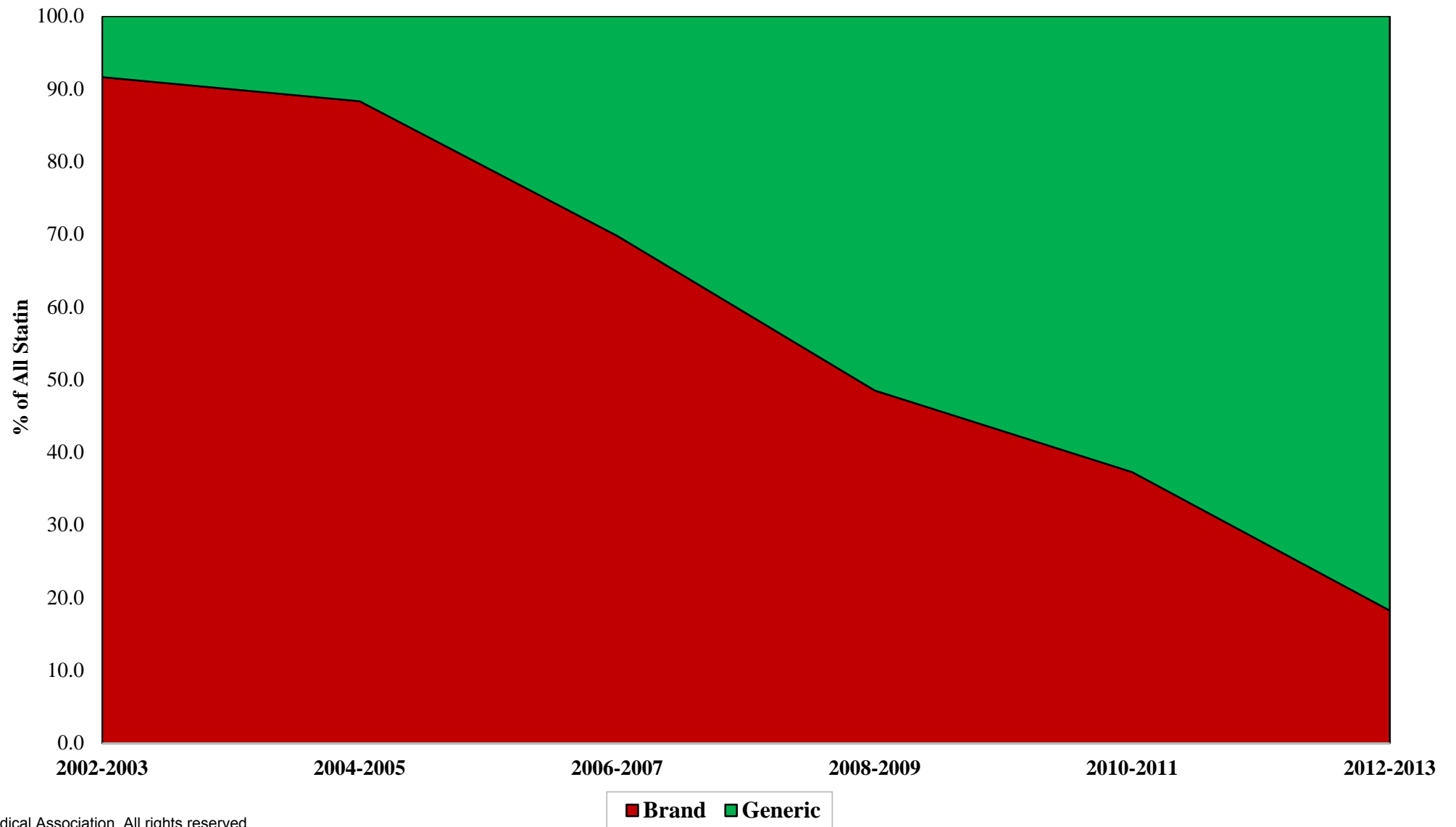
Accuracy of Prescribed Medicine Data

In a study by SC Hill, et. al. examining the implication of the accuracy of MEPS prescription drug data for health services research, between MEPS and the Medicare Part D claims records, they found no difference in the proportion of beneficiaries reporting any prescription drug use, with an agreement rate of 0.97 (95% Confidence Interval: 0.96-0.98) and a kappa statistic of 0.66, which signifies a substantial agreement. There was concordance for the number of fills and refills, as well as total prescription expenditures. They concluded that household respondents in the MEPS were good at reporting the number of fills and refills, and consistent with other studies, MEPS captured maintenance drugs adequately, especially drugs used for chronic conditions.

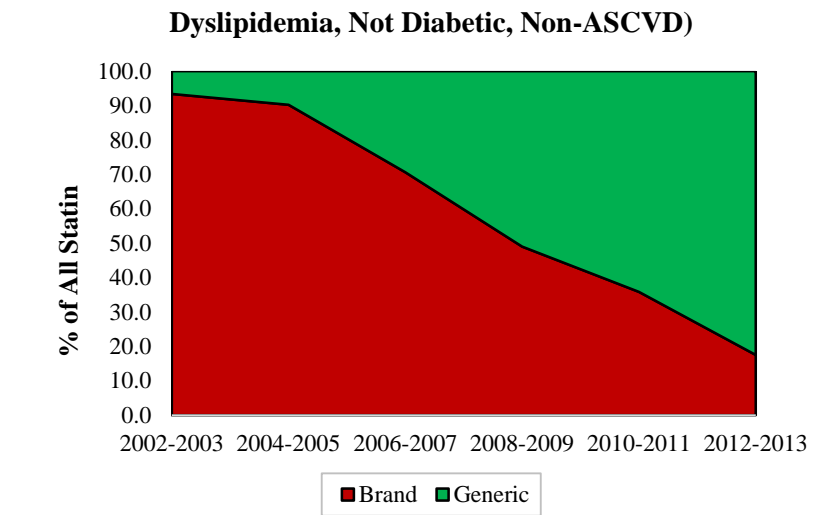
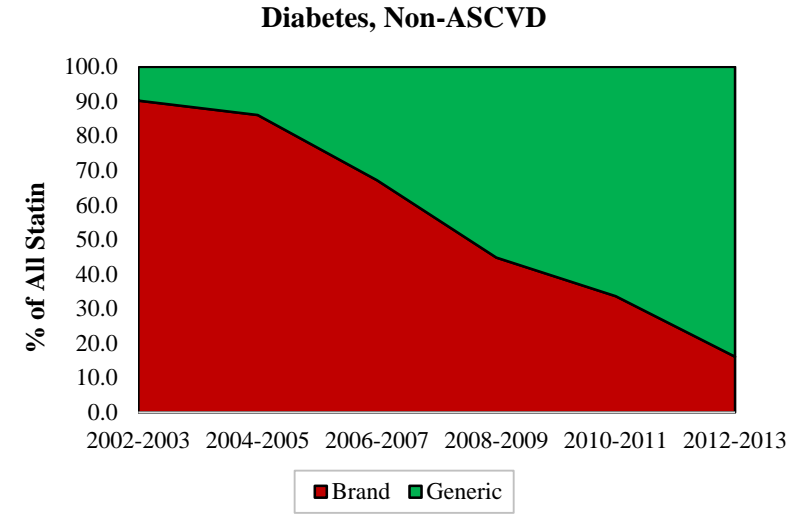
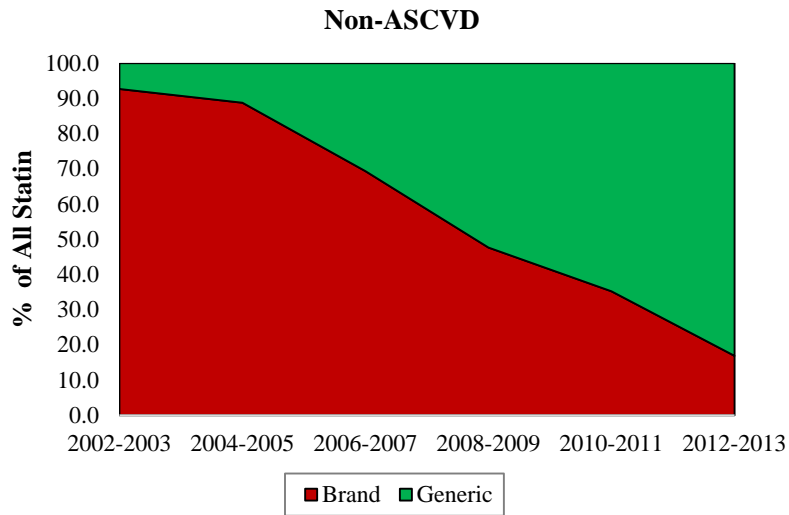
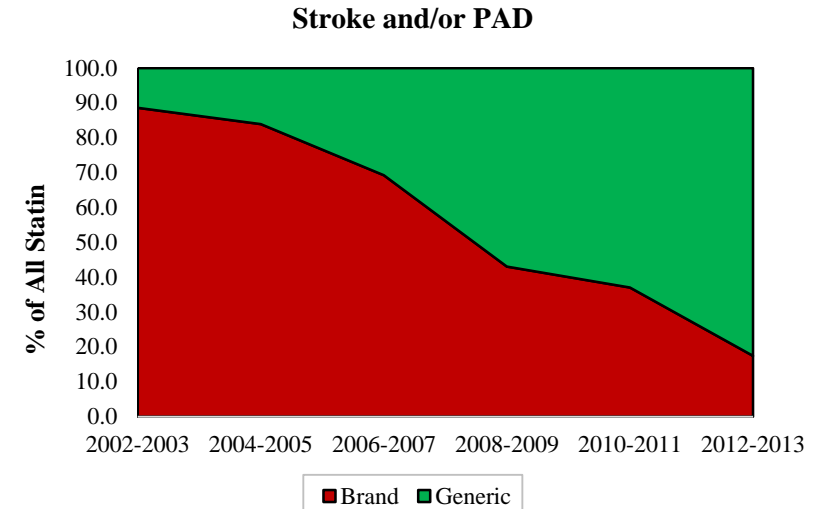
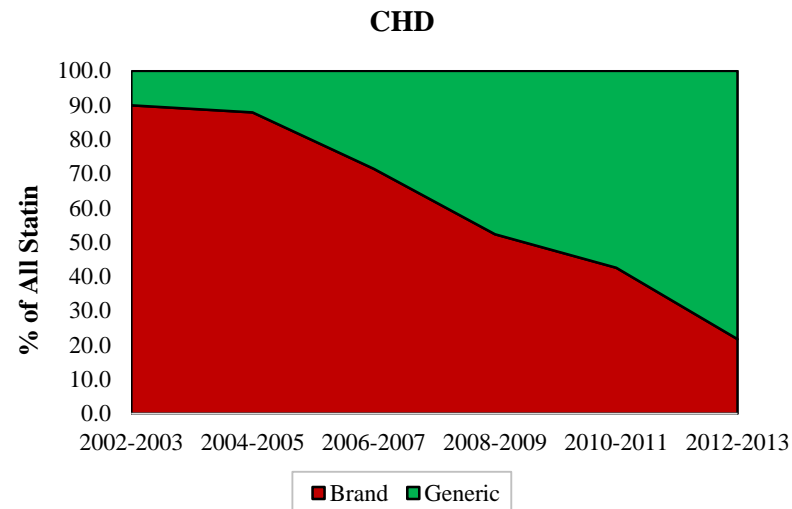
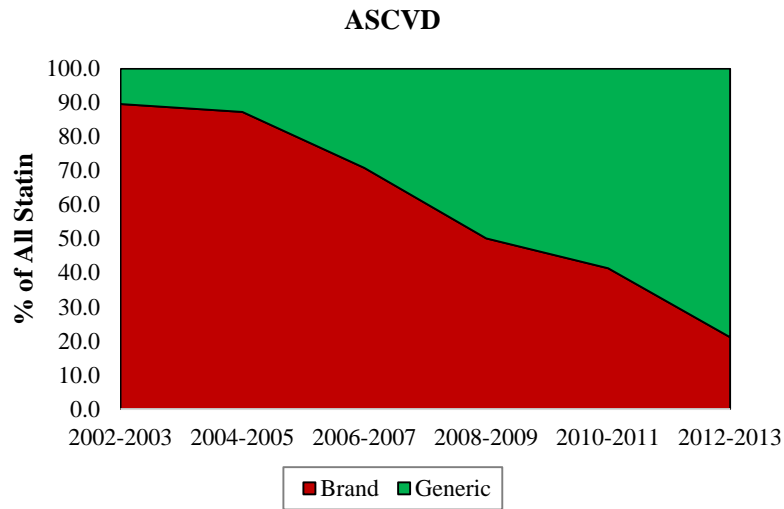
eFigure 1. Flow Chart Showing the Selection of Study Participants



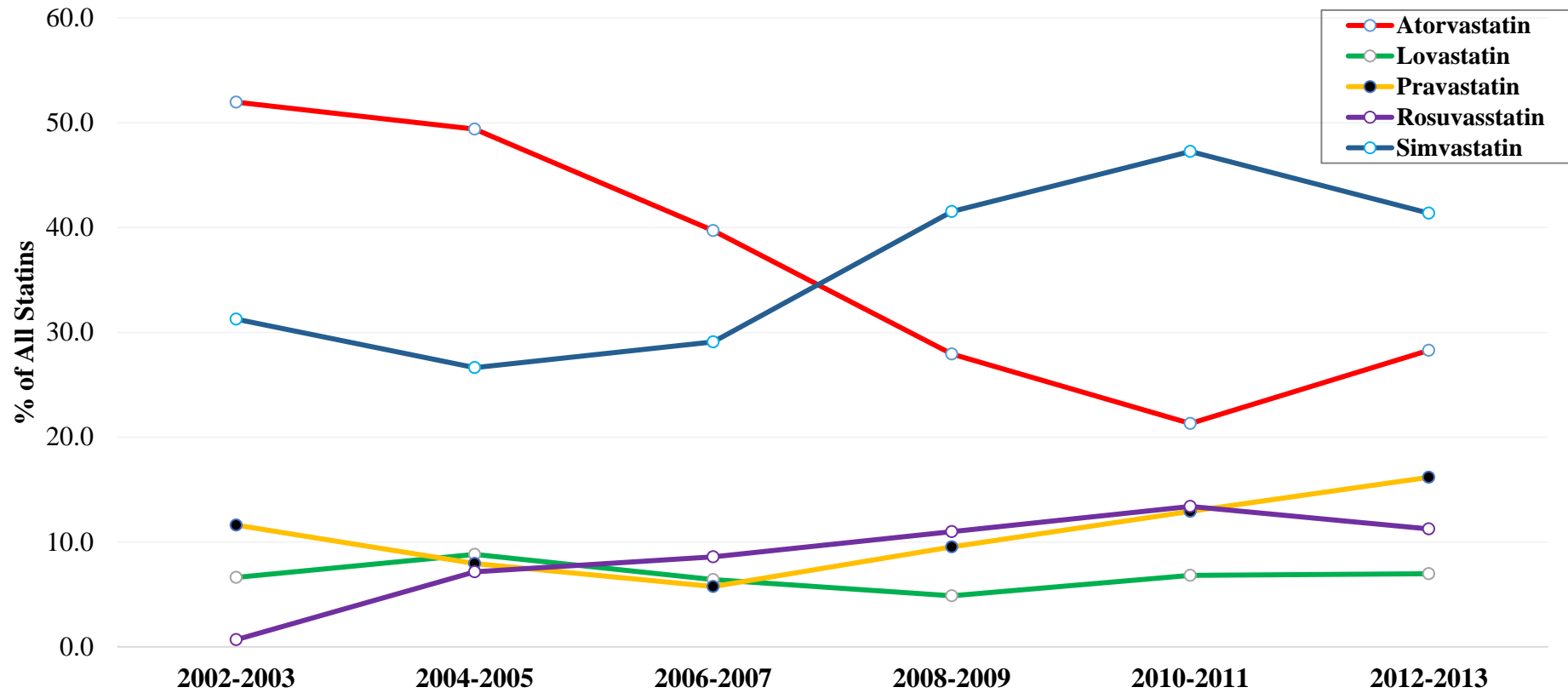
eFigure 2a. Trends in the Use of Brand vs Generic Statins in the General Adult Population, MEPS 2002-2013



eFigure 2b. Trends in Statin Use, Brand vs Generic, by ASCVD and Risk Group, MEPS 2002-2013



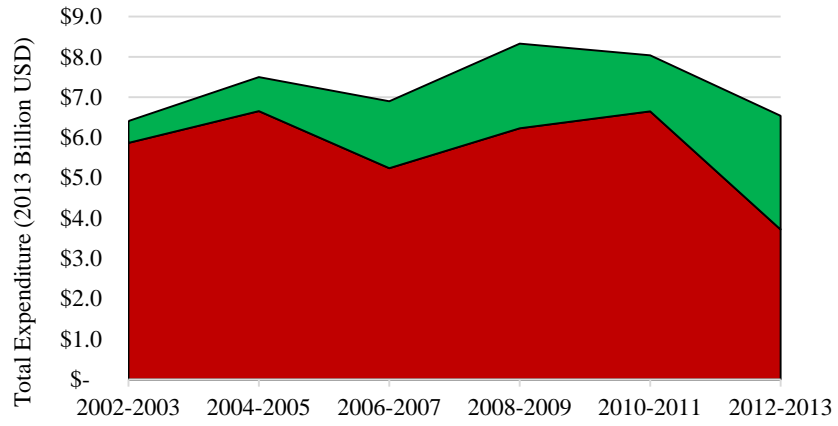
eFigure 3. Trends in Specific Statin Use and Corresponding Number of Prescriptions in General Adult Population, MEPS 2002-2013



Specific Statin	Number of Specific Statin Prescriptions (Millions)					
Atorvastatin	68.4	82.6	73.5	56.7	44.7	54.8
Simvastatin	37.9	40.9	49.1	79.4	96.8	90.2
Pravastatin	15.4	13.7	10.5	18.5	27.9	32.5
Rosuvastatin	0.25	10.1	14.1	22.1	26.7	23.0
Lovastatin	6.75	12.6	10.6	9.88	14.6	14.9
Fluvastatin	5.51	4.47	3.53	0.54	0.68	0.24
Pitavastin	0.00	0.00	0.00	0.00	0.17	0.9
Combinations	0.00	6.25	19.3	16.3	9.46	4.82

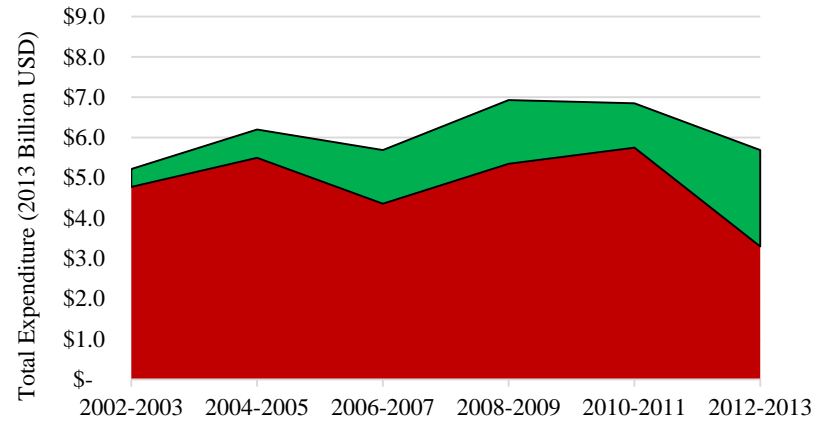
eFigure 4. Trends in Total Expenditures on Statins by Risk Group, MEPS 2002-2013

ASCVD



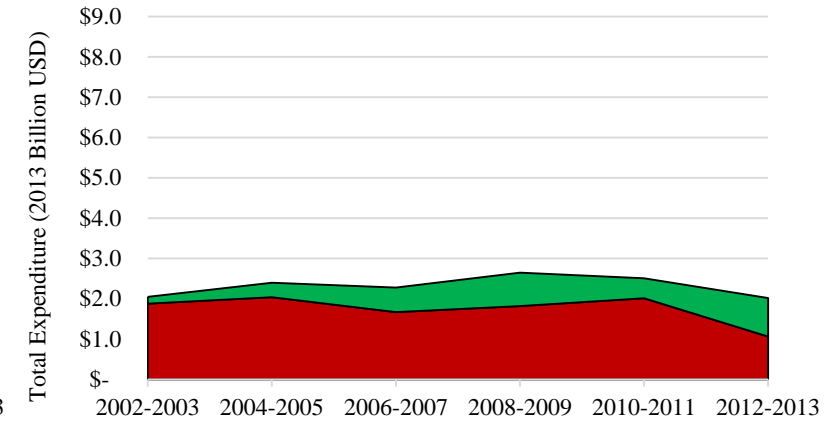
■ Brand ■ Generic

Coronary Heart Disease



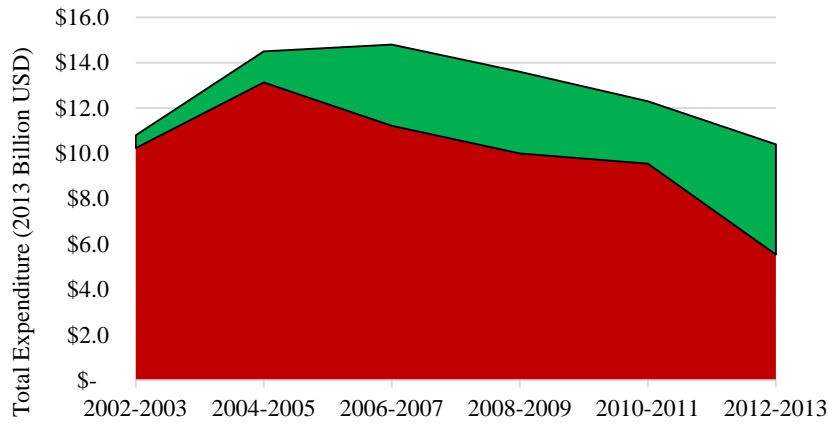
■ Brand ■ Generic

Stroke/PAD



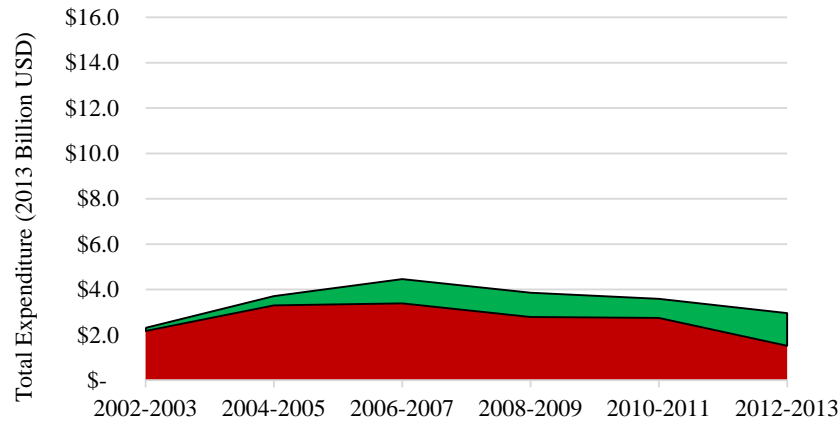
■ Brand ■ Generic

Non-ASCVD



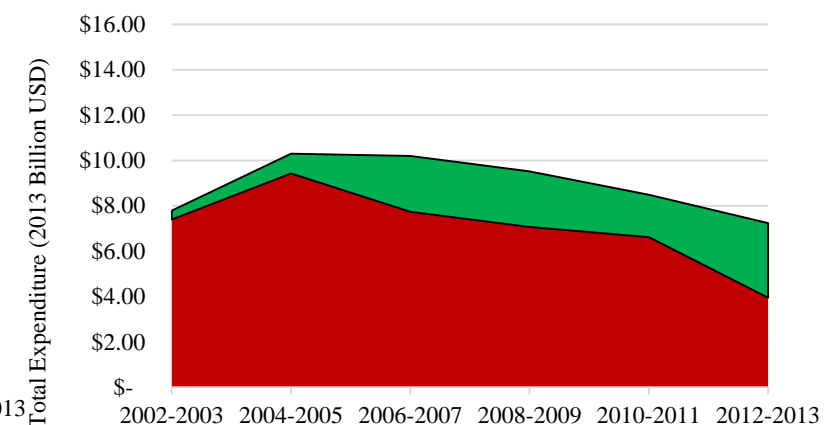
■ Brand ■ Generic

Diabetes, Non-ASCVD



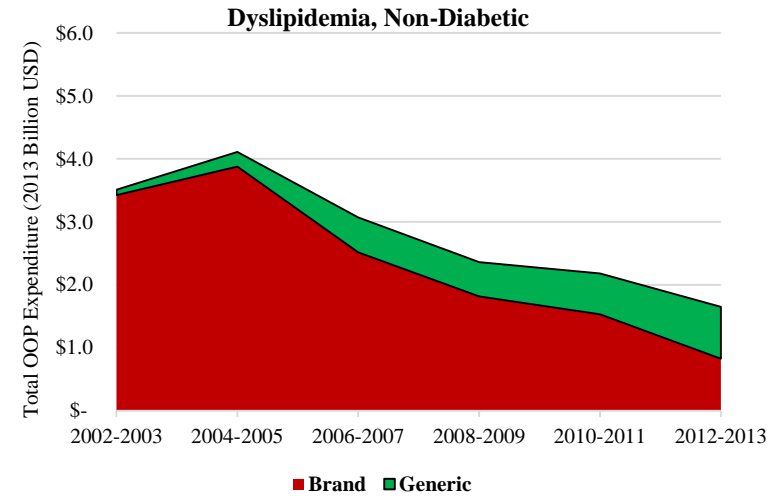
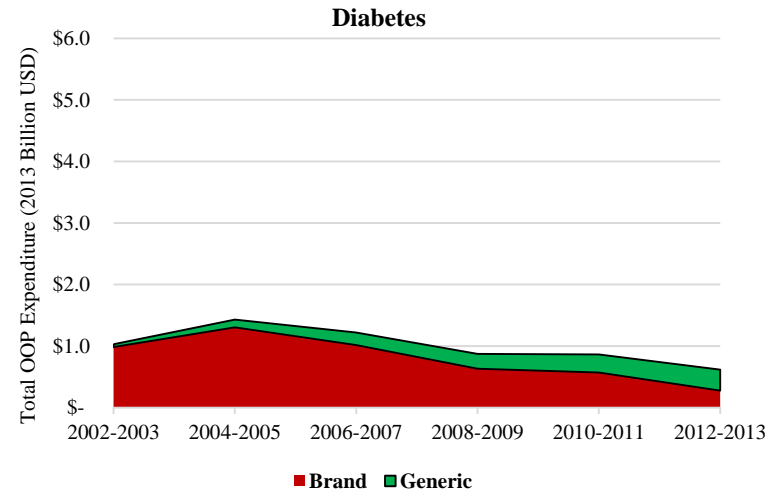
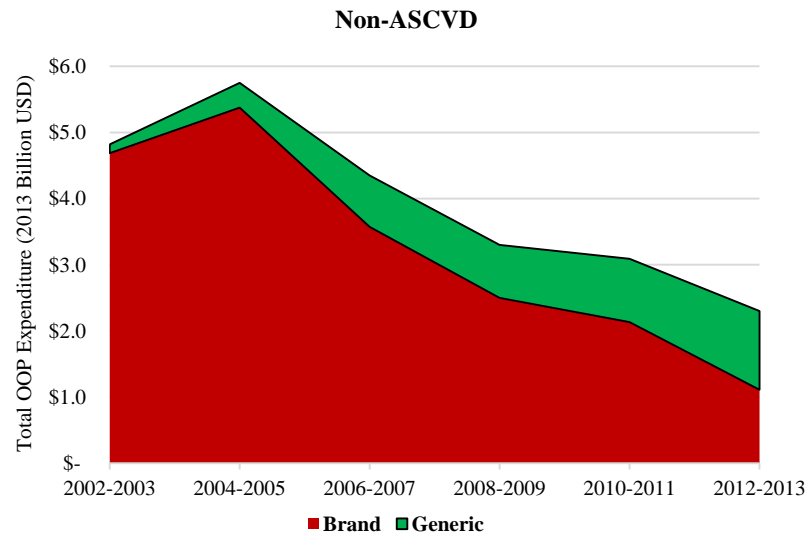
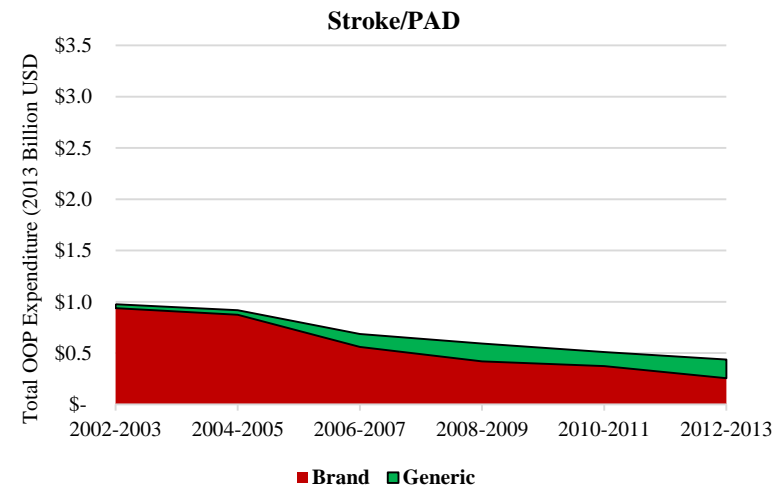
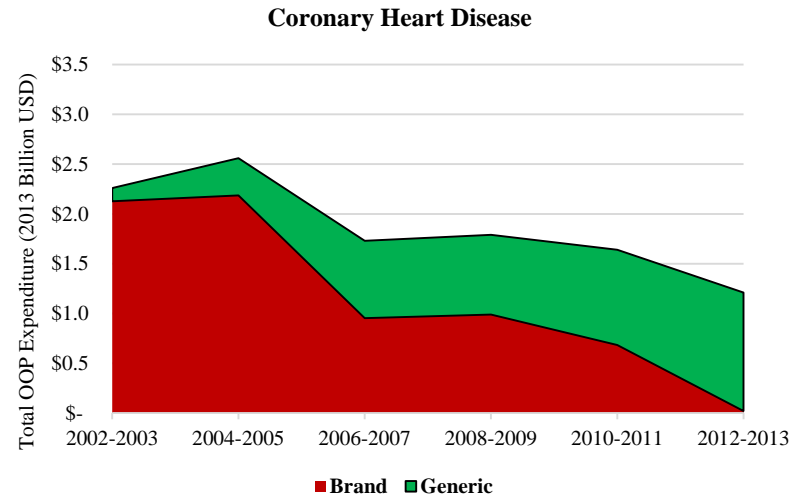
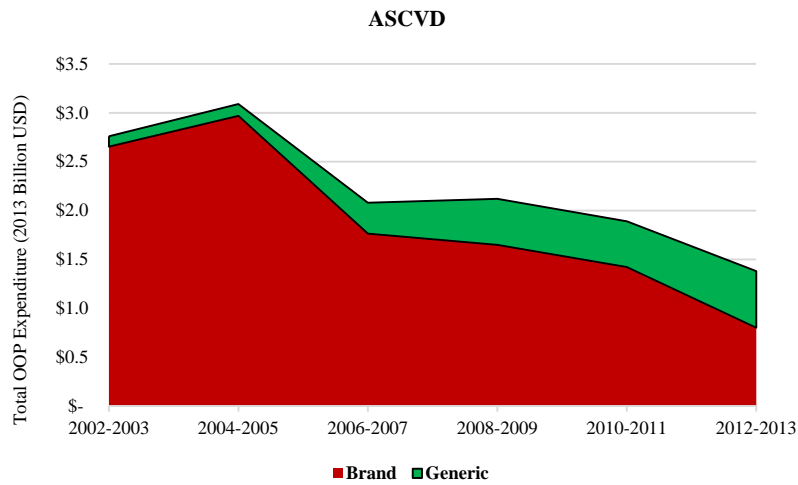
■ Brand ■ Generic

Dyslipidemia, Non-Diabetic, Non-ASCVD

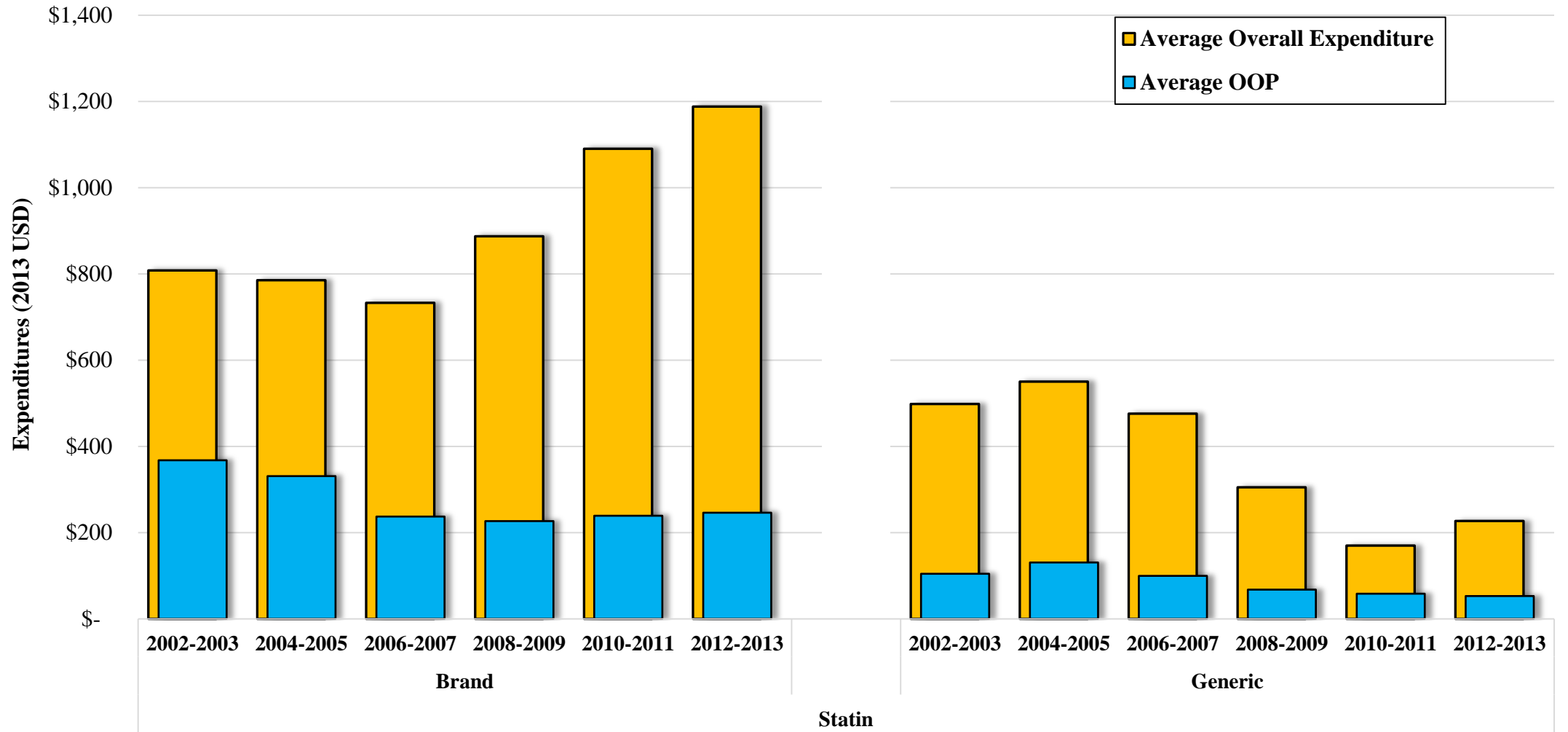


■ Brand ■ Generic

eFigure 5. Trends in Total Out-of-Pocket Expenditures on Statins by Risk Group, MEPS 2002-2013



eFigure 6. Average Expenditures on Statins Among Statin Users in the General Adult Population, MEPS 2002-2013



Abbreviations:

OOP, Out-of-Pocket; USD, United States Dollar

eTable 1. ICD-9-CM Codes of Diseases, MEPS 2002-2013

ICD-9 CM Code	Disease description
ASCVD	
Coronary Heart Disease	
410	Acute myocardial infarction
413	Angina pectoris
414	Other forms of chronic ischemic heart disease:
Cerebrovascular Disease	
433	Pre-cerebral occlusion
434	Cerebral artery occlusion
435	Transient cerebral ischemia
436	Cerebrovascular accident
437	Other cerebrovascular disease
Peripheral Arterial Disease	
440	Atherosclerosis. Examples:
440.0	Atherosclerosis of aorta
440.1	Atherosclerosis of renal artery
440.2	Atherosclerosis of native arteries of extremities
440.3	Atherosclerosis of bypass graft of extremities
Other Conditions	
250	Diabetes Mellitus
272	Dyslipidemia
410	Hypertension

eTable 2. Characteristics of US Adults Aged 40 and Older Who Used Any Statins Over a 12-Year Period, MEPS 2002-2013

	Cycle N (Millions)	2002-2003 21.8	2004-2005 28.4	2006-2007 31.1	2008-2009 35.3	2010-2011 37.6	2012-2013 39.2	p-value*
Characteristics								
Age, years								
Mean Age (SE)		63.8 (0.3)	63.9 (0.3)	64.3 (0.2)	64.4 (0.3)	64.3 (0.2)	65.0 (0.3)	0.030
Age Category (%)								
40-64		52.7	52.7	52.0	52.2	51.7	47.9	<0.001
65-74		26.5	26.1	24.8	24.8	26.6	29.9	
75 or Older		20.8	21.2	23.2	23.0	21.7	22.2	
Sex (%)								
Male		53.0	51.5	51.8	51.1	52.8	51.5	0.420
Female		47.0	48.5	48.2	48.9	47.2	48.5	
Race/ethnicity (%)								
Non-Hispanic White		82.1	81.1	78.9	79.3	78.3	76.7	0.030
Non-Hispanic Black		7.9	7.6	8.4	8.4	8.8	9.2	
Asian		2.7	3.0	3.8	3.5	3.8	3.8	
Hispanic		5.2	6.4	7.3	6.9	7.5	8.4	
Other		2.0	2.0	1.7	2.0	1.7	1.9	
Insurance status (%)								
Uninsured		2.4	2.9	3.6	3.7	4.1	3.3	<0.001
Private only		42.3	42.1	40.3	40.2	39.8	36.5	
Medicaid		3.0	3.2	2.9	3.2	5.4	8.1	
Medicare		19.4	19.8	22.1	25.6	36.4	51.5	
Other (Public/Private)		32.9	31.9	31.0	27.4	14.4	0.6	
Family income level (%)								
Poor (<100% of FPL)		8.6	8.4	9.0	9.3	10.2	10.2	0.040
Near Poor (100-124% of FPL)		4.4	3.5	5.2	4.8	4.4	4.8	
Low Income (125-199% of FPL)		14.2	14.0	12.0	13.2	13.1	14.0	
Middle Income (200-399% of FPL)		27.3	27.8	27.7	27.5	28.7	27.5	
High Income (≥400% of FPL)		45.5	46.2	46.1	45.1	43.6	43.6	
Region (%)								
Northeast		22.0	20.8	21.5	19.4	19.7	18.7	0.450
Midwest		23.4	24.4	22.3	23.3	23.1	23.5	
South		37.2	34.7	36.8	37.2	37.5	37.7	
West		17.5	20.1	19.5	20.2	19.8	20.2	
GCCI** (%)								
0		83.3	81.9	79.5	75.2	75.2	76.9	<0.001
1		10.5	11.6	13.6	13.8	14.6	14.6	
2		6.2	6.5	6.9	11.0	10.2	8.5	
History of: (%)								

CHD	28.4	25.6	24.4	28.8	28.1	26.8	0.002
Stroke	9.4	9.2	11.7	10.8	11.2	10.5	0.006
PAD	0.9	0.8	0.5	0.2	0.3	0.4	0.001
Diabetes	24.9	27.0	30.0	31.5	31.9	32.3	<0.001
Dyslipidemia	92.6	94.7	96.0	95.9	95.1	95.7	<0.001

Abbreviations: CHD, Coronary Heart Disease; GCCI, Grouped Charlson Comorbidity Index; MEPS, Medical Expenditure Panel Survey; PAD, Peripheral Arterial Disease; SE, Standard Error

Note:

* p-value for year effect on population characteristics were computed using linear regression for mean age and Pearson Chi-squared test for proportions

**GCCCI was modified for this study by excluding any cardiovascular disease or diabetes from the comorbidity index computation

eTable 3. Characteristics of US Adults Aged 40 and Older Who Did Not Use Any Statin Over a 12-Year Period, MEPS 2002-2013

	Cycle	2002-2003	2004-2005	2006-2007	2008-2009	2010-2011	2012-2013	P-value*
	N (Millions)	21.8	28.4	31.1	35.3	37.6	39.2	
Characteristics								
Age, years								
Mean Age (SE)		55.4 (0.2)	55.1 (0.2)	55.2 (0.2)	55.3 (0.2)	55.7 (0.2)	56.0 (0.2)	<0.001
Age Category (%)								
40-64		77.5	78.9	79.5	80.0	79.2	78.3	<0.001
65-74		11.9	11.0	11.0	11.2	11.8	12.6	
75 or Older		10.6	10.1	9.5	8.8	9.0	9.1	
Sex (%)								
Male		46.4	46.8	46.9	46.8	46.3	46.3	0.753
Female		53.6	53.2	53.1	53.2	53.8	53.7	
Race/ethnicity (%)								
Non-Hispanic White		74.5	72.8	72.3	71.3	70.2	68.9	<0.001
Non-Hispanic Black		10.8	11.0	11.1	11.1	11.3	11.5	
Asian		3.8	4.0	4.2	4.2	4.6	5.3	
Hispanic		9.4	10.1	10.7	11.7	12.3	12.5	
Other		1.6	2.1	1.7	1.8	1.7	1.8	
Insurance status (%)								
Uninsured		10.5	11.6	12.4	13.8	12.9	14.2	<0.001
Private only		60.4	60.1	60.6	59.0	59.0	56.9	
Medicaid		3.3	3.8	3.3	3.6	5.7	7.4	
Medicare		11.1	10.6	11.5	12.0	16.6	21.3	
Other (Public/Private)		14.7	13.8	12.3	11.5	5.9	0.2	
Family income level (%)								
Poor (<100% of FPL)		9.0	9.0	8.7	9.3	10.1	10.4	0.020
Near Poor (100-124% of FPL)		3.7	3.9	3.7	4.0	3.9	4.1	
Low Income (125-199% of FPL)		11.9	12.2	12.0	12.4	12.7	12.4	
Middle Income (200-399% of FPL)		28.8	29.9	29.5	29.6	29.1	29.0	
High Income (≥400% of FPL)		46.5	45.0	46.1	44.8	44.2	44.1	
Region (%)								
Northeast		19.3	19.1	18.7	18.7	18.5	18.4	0.904
Midwest		22.8	22.2	22.0	21.8	21.7	21.2	
South		35.6	36.3	36.0	36.4	36.6	37.2	
West		22.3	22.4	23.3	23.1	23.3	23.3	
GCCI** (%)								
0		87.5	87.5	87.2	84.6	84.3	86.1	<0.001
1		8.6	8.8	8.7	10.1	10.1	9.7	
2		4.0	3.7	4.1	5.4	5.5	4.2	
History of: (%)								
CHD		5.1	4.5	4.6	6.8	6.1	6.3	<0.001
Stroke		3.4	3.0	3.3	3.8	3.8	3.8	0.003

PAD	0.12	0.12	0.06	0.07	0.04	0.04	0.023
Diabetes	7.7	7.7	8.2	8.8	9.1	9.0	<0.001
Dyslipidemia	34.7	28.1	22.1	28.8	27.3	28.3	<0.001

Abbreviations: CHD, Coronary Heart Disease; GCCI, Grouped Charlson Comorbidity Index; MEPS, Medical Expenditure Panel Survey; PAD, Peripheral Arterial Disease; SE, Standard Error

Note:

* p-value for year effect on population characteristics were computed using linear regression for mean age and Pearson Chi-squared test for proportions

**GCCCI was modified for this study by excluding any cardiovascular disease or diabetes from the comorbidity index computation

eTable 4a. Variation in Trends in Any Statin Use Among ASCVD U.S. Adults With CHD, MEPS 2002-2013

	Cycle	2002-2003	2004-2005	2006-2007	2008-2009	2010-2011	2012-2013
	N (Millions)	11.3	11.7	12	16.8	16.6	16.9
Age Category							
40-64		51.6 (47.3-55.9)	60.0 (56.0-63.9)	61.2 (57.1-65.2)	54.0 (50.1-57.9)	59.1 (55.0-63.0)	53.0 (49.3-56.7)
65-74		61.2 (56.7-65.6)	69.3 (64.7-73.6)	71.7 (66.6-76.2)	67.2 (62.1-71.8)	69.7 (65.0-74.1)	70.1 (65.4-74.5)
75 or Older		53.3 (49.1-57.5)	59.8 (55.2-64.2)	59.2 (54.7-63.5)	63.2 (57.7-68.4)	64.8 (60.4-68.9)	64.6 (60.5-68.5)
Sex							
Male		59.7 (56.4-63.0)	67.4 (64.0-70.7)	69.2 (65.8-72.4)	67.1 (63.5-70.4)	69.9 (66.4-73.1)	68.0 (64.5-71.3)
Female		47.8 (44.0-51.7)	65.2 (50.9-59.3)	55.1 (50.8-59.4)	51.8 (47.5-56.1)	55.2 (51.8-58.5)	53.2 (49.2-57.1)
Race/ethnicity							
Non-Hispanic White		56.8 (53.8-59.8)	64.7 (61.8-67.4)	65.8 (62.8-68.7)	63.5 (60.1-66.9)	66.5 (63.4-69.5)	65.0 (62.0-67.2)
Non-Hispanic Black		42.4 (34.4-50.8)	47.7 (41.0-54.4)	50.2 (43.8-56.5)	47.8 (42.3-53.3)	52.1 (46.1-58.1)	51.7 (47.0-56.3)
Asian		56.6 (40.0-71.8)	71.0 (53.8-83.8)	71.8 (57.5-82.7)	63.5 (51.9-73.7)	77.6 (67.5-85.2)	63.6 (53.2-72.9)
Hispanic		47.0 (38.4-55.8)	55.2 (47.8-62.5)	51.0 (42.6-59.5)	45.3 (39.0-51.7)	48.1 (40.9-55.4)	46.4 (42.1-50.8)
Other		49.3 (36.8-61.9)	35.3 (20.5-53.5)	51.9 (31.1-72.1)	60.3 (45.2-73.7)	53.3 (38.9-67.1)	70.3 (53.7-82.8)
Insurance status							
Uninsured		33.3 (24.0-44.2)	31.7 (23.5-41.3)	39.3 (29.3-50.2)	37.0 (28.5-46.4)	42.8 (34.6-51.5)	30.5 (23.8-38.2)
Private only		58.1 (52.8-63.3)	67.9 (62.7-72.7)	66.8 (61.4-71.8)	57.4 (52.1-62.6)	63.5 (57.9-68.8)	57.6 (52.4-62.7)
Medicaid		45.3 (35.0-56.1)	57.1 (46.3-67.1)	50.8 (39.1-62.3)	49.8 (40.9-58.8)	55.0 (48.3-61.6)	53.1 (45.4-60.6)
Medicare		48.0 (43.3-52.7)	58.1 (53.3-62.7)	58.9 (54.7-63.0)	62.6 (58.0-67.0)	64.2 (60.5-67.8)	67.6 (64.4-70.6)
Other (Public/Private)		61.1 (56.8-65.3)	66.2 (62.2-70.0)	69.0 (64.4-73.3)	65.9 (60.9-70.7)	73.6 (68.3-78.3)	55.7 (22.9-84.2)
Family income level							
Poor (<100% of FPL)		41.8 (36.2-47.6)	50.8 (44.3-57.2)	53.1 (46.6-59.5)	54.2 (49.3-59.0)	58.1 (53.5-62.5)	55.8 (50.1-61.3)
Near Poor (100-124% of FPL)		49.9 (42.1-57.7)	51.7 (42.1-61.1)	63.4 (54.5-71.4)	54.9 (46.0-63.4)	52.7 (44.0-61.2)	58.4 (49.9-66.5)
Low Income (125-199% of FPL)		51.8 (45.6-58.0)	57.6 (52.0-63.0)	53.0 (46.6-59.3)	59.7 (53.4-65.7)	59.1 (53.3-64.7)	60.7 (55.6-62.6)
Middle Income (200-399% of FPL)		58.8 (54.7-62.8)	62.5 (58.4-66.5)	60.5 (55.8-65.0)	58.1 (53.5-62.5)	63.3 (59.0-67.4)	57.7 (52.6-62.6)
High Income (≥400% of FPL)		59.2 (54.2-64.1)	70.2 (66.0-74.2)	73.0 (69.2-76.5)	66.8 (62.3-71.0)	70.4 (66.2-74.5)	69.7 (65.3-7.7)
Region							

Northeast	59.8 (54.5-65.0)	65.5 (60.7-70.1)	66.8 (59.0-73.7)	62.2 (53.6-70.0)	64.6 (56.3-72.1)	64.4 (59.5-69.1)
Midwest	55.8 (50.9-60.6)	67.5 (62.6-72.1)	59.9 (55.0-64.6)	66.6 (61.8-71.1)	64.9 (60.2-69.3)	64.6 (58.0-70.8)
South	52.9 (48.7-57.1)	57.0 (52.8-61.0)	62.8 (58.6-66.9)	56.3 (52.0-60.5)	64.0 (60.4-67.5)	59.9 (56.2-63.4)
West	52.6 (45.8-59.4)	63.8 (55.9-71.0)	64.3 (58.3-69.8)	59.8 (54.3-65.1)	60.6 (54.2-66.8)	60.4 (54.4-66.0)
GCCI**						
1	55.3 (52.3-58.3)	62.6 (59.9-65.2)	63.1 (60.1-66.0)	60.7 (57.7-63.6)	63.3 (60.2-66.4)	60.7 (57.6-63.7)
2	53.9 (47.8-59.9)	62.2 (55.0-68.8)	66.8 (60.6-72.5)	58.1 (52.1-63.8)	60.6 (55.1-65.8)	62.1 (56.5-67.4)
3	52.5 (44.4-60.3)	60.1 (51.1-68.4)	55.9 (46.3-65.1)	63.0 (56.0-69.4)	70.9 (64.9-76.2)	69.2 (62.9-74.8)

Abbreviations: CHD, Coronary Heart Disease; FPL, Federal Poverty Level; GCCI, Grouped Charlson Comorbidity Index; MEPS, Medical Expenditure Panel Survey; PAD, Peripheral Arterial Disease; SE, Standard Error

Note:

* p-value for year effect on population characteristics were computed using linear regression for mean age and Pearson Chi-squared test for proportions

**GCCI was modified for this study by excluding any cardiovascular disease or diabetes from the comorbidity index computation

eTable 4b. Variation in Trends in Any Statin Utilization Among ASCVD U.S. Adults With Stroke of PAD, MEPS 2002-2013

	Cycle N (Millions)	2002-2003 5.9	2004-2005 5.9	2006-2007 6.3	2008-2009 7.9	2010-2011 7.9	2012-2013 8.4
Age Category							
40-64		38.3 (32.5-44.4)	46.7 (41.0-52.6)	41.8 (36.3-47.5)	43.2 (37.8-48.6)	38.6 (33.9-43.6)	41.2 (36.2-46.5)
65-74		52.8 (45.8-59.6)	55.4 (47.8-62.7)	55.5 (48.6-62.2)	58.6 (51.9-64.9)	64.6 (58.4-70.3)	61.7 (55.2-67.7)
75 or Older		34.5 (29.4-40.1)	47.6 (41.6-53.7)	49.8 (43.8-55.9)	58.4 (52.3-64.2)	56.7 (50.9-62.2)	59.3 (52.8-65.5)
Sex							
Male		45.9 (40.1-51.7)	50.8 (44.6-56.9)	53.5 (48.0-58.9)	57.5 (52.4-62.5)	53.3 (48.6-57.9)	56.0 (50.3-61.6)
Female		36.4 (31.8-41.2)	48.2 (46.2-53.3)	44.0 (39.4-48.7)	49.1 (44.3-53.9)	50.9 (46.7-55.1)	50.8 (46.1-55.5)
Race/ethnicity							
Non-Hispanic White		40.6 (36.3-45.1)	51.9 (47.4-56.2)	49.2 (44.7-53.6)	54.6 (50.0-59.1)	54.8 (51.2-58.4)	54.7 (49.7-59.5)
Non-Hispanic Black		44.3 (34.5-54.5)	40.5 (33.5-47.9)	37.8 (30.6-45.5)	40.4 (33.9-47.4)	44.9 (38.0-52.0)	45.5 (40.5-50.5)
Asian		44.2 (23.2-67.4)	44.2 (19.1-72.6)	67.2 (48.2-81.9)	62.4 (46.4-76.1)	58.8 (38.9-76.1)	59.8 (43.3-74.4)
Hispanic		31.3 (21.4-43.4)	48.2 (36.2-60.4)	47.0 (36.0-58.4)	55.6 (45.7-65.0)	40.1 (30.5-50.6)	49.1 (40.9-57.3)
Other		50.2 (30.2-70.2)	26.9 (12.1-49.7)	57.9 (37.4-76.0)	47.3 (28.7-66.7)	41.7 (21.5-65.1)	64.4 (46.6-79.0)
Insurance status							
Uninsured		21.2 (10.8-37.3)	17.2 (10.2-27.7)	27.4 (15.1-44.5)	21.8 (13.0-34.1)	24.9 (16.2-36.2)	18.4 (10.7-30.0)
Private only		39.4 (31.6-47.7)	47.7 (38.7-56.7)	44.8 (36.6-53.2)	43.7 (35.7-52.0)	39.8 (32.2-48.0)	38.2 (30.9-46.1)
Medicaid		34.5 (23.7-47.1)	51.6 (38.3-64.7)	37.6 (26.2-50.7)	44.4 (33.8-55.6)	41.0 (33.1-49.4)	51.8 (43.7-59.9)
Medicare		43.2 (37.8-48.8)	47.8 (41.3-54.3)	47.0 (41.8-52.3)	57.7 (52.0-63.2)	56.0 (52.1-59.8)	60.6 (55.8-65.2)
Other (Public/Private)		41.8 (35.5-48.3)	54.7 (48.5-60.7)	54.8 (48.4-60.9)	57.8 (52.1-63.3)	67.5 (60.8-73.6)	27.7 (3.0-82.9)
Family income level							
Poor (<100% of FPL)		38.2 (32.0-44.8)	44.7 (37.6-52.1)	47.1 (39.3-55.0)	46.8 (39.7-54.0)	45.5 (39.4-51.8)	51.5 (44.3-58.7)
Near Poor (100-124% of FPL)		40.8 (29.5-53.2)	37.4 (27.3-48.8)	45.9 (35.6-56.6)	45.0 (35.2-55.3)	45.3 (34.7-56.4)	51.9 (42.0-61.7)
Low Income (125-199% of FPL)		37.4 (30.7-44.6)	53.8 (46.4-61.1)	49.1 (40.3-57.9)	49.8 (42.7-56.8)	47.4 (40.4-54.6)	54.1 (46.6-61.5)
Middle Income (200-399% of FPL)		44.1 (37.9-50.4)	46.9 (40.5-53.4)	42.2 (35.7-48.9)	57.8 (51.9-63.5)	56.2 (50.8-61.5)	54.3 (48.0-60.6)
High Income (≥400% of FPL)		41.4 (34.7-48.5)	53.8 (46.8-60.7)	53.9 (47.4-60.2)	54.8 (48.1-61.3)	56.1 (48.9-63.1)	53.0 (45.2-60.7)
Region							

Northeast	43.0 (33.5-53.0)	49.0 (38.9-59.2)	49.9 (38.5-61.3)	54.7 (44.7-64.3)	55.3 (48.6-61.8)	53.5 (44.0-62.8)
Midwest	37.2 (30.3-44.6)	51.1 (43.5-58.7)	47.3 (40.2-54.5)	53.7 (46.6-60.7)	52.7 (46.2-59.1)	54.0 (45.3-62.4)
South	44.9 (38.8-51.2)	47.6 (41.4-54.0)	48.2 (43.4-53.0)	50.8 (45.5-56.2)	51.2 (47.3-55.1)	51.5 (46.1-56.8)
West	36.2 (27.7-45.7)	51.3 (42.1-60.5)	47.8 (38.3-57.4)	54.1 (46.7-61.4)	50.3 (43.8-56.8)	55.9 (47.1-64.3)
GCCI**						
1	40.7 (35.9-45.6)	49.6 (45.6-53.6)	47.3 (42.8-51.8)	51.6 (47.3-55.9)	51.0 (47.1-54.8)	48.2 (43.9-52.5)
2	42.0 (34.6-49.7)	58.5 (49.7-66.7)	51.4 (43.1-59.7)	56.3 (48.5-63.8)	54.0 (46.3-61.5)	60.9 (53.6-67.8)
3	40.9 (29.1-53.8)	33.9 (22.0-48.2)	47.8 (36.0-59.8)	54.3 (45.8-62.5)	54.5 (46.1-62.7)	70.1 (59.9-78.7)

Abbreviations: CHD, Coronary Heart Disease; FPL, Federal Poverty Level; GCCI, Grouped Charlson Comorbidity Index; MEPS, Medical Expenditure Panel Survey; PAD, Peripheral Arterial Disease

Note:

* p-value for year effect on population characteristics were computed using linear regression for mean age and Pearson Chi-squared test for proportions

**GCCI was modified for this study by excluding any cardiovascular disease or diabetes from the comorbidity index computation

eTable 4c. Variation in Trends in Any Statin Utilization Among Non-ASCVD U.S. Adults With Diabetes, MEPS 2002-2013

	Cycle N (Millions)	2002-2003 8.9	2004-2005 10.8	2006-2007 12.6	2008-2009 13.2	2010-2011 14.1	2012-2013 14.6
Age Category							
40-64		32.5 (29.3-36.4)	41.6 (38.2-45.0)	45.3 (42.0-48.6)	44.6 (41.5-48.1)	47.7 (44.7-50.7)	46.9 (43.7-50.1)
65-74		38.7 (33.3-44.4)	50.2 (44.1-56.2)	58.7 (52.7-64.4)	63.9 (57.7-69.7)	58.0 (52.1-63.7)	60.9 (56.5-65.1)
75 or Older		28.2 (22.5-34.6)	49.8 (43.2-56.4)	55.3 (48.6-61.8)	58.7 (50.5-66.2)	58.5 (51.2-65.5)	61.7 (54.9-68.1)
Sex							
Male		32.7 (28.8-36.9)	45.5 (41.3-49.8)	49.6 (45.9-53.3)	48.4 (44.4-52.5)	51.1 (47.0-55.2)	53.1 (49.0-57.2)
Female		34.0 (30.1-38.1)	44.0 (40.5-47.7)	49.6 (46.0-53.3)	51.8 (47.6-55.9)	51.6 (48.0-55.2)	52.3 (48.8-55.9)
Race/ethnicity							
Non-Hispanic White		36.0 (32.3-39.8)	48.9 (45.1-52.6)	52.5 (49.0-56.1)	53.8 (49.5-58.0)	55.2 (51.2-59.1)	56.6 (52.8-60.2)
Non-Hispanic Black		27.1 (22.6-32.3)	33.9 (28.5-39.8)	43.3 (36.7-50.1)	41.3 (37.1-45.7)	43.8 (38.1-49.7)	42.5 (37.3-47.8)
Asian		26.8 (17.3-39.1)	42.0 (29.3-56.0)	53.0 (40.0-65.8)	54.3 (40.3-67.5)	57.6 (49.4-65.5)	56.7 (48.9-64.2)
Hispanic		28.7 (24.0-33.9)	38.4 (32.3-45.0)	44.0 (38.8-49.3)	43.6 (38.8-48.4)	41.3 (36.5-46.3)	46.4 (42.2-50.7)
Other		45.5 (29.4-62.6)	47.4 (29.7-65.8)	39.5 (25.1-56.0)	38.5 (23.6-56.0)	54.4 (36.0-71.1)	58.4 (40.8-74.1)
Insurance status							
Uninsured		16.9 (11.2-24.8)	29.1 (21.5-38.2)	27.6 (21.6-34.6)	26.5 (20.7-33.3)	30.5 (23.5-38.5)	30.6 (23.8-38.4)
Private only		35.4 (31.0-40.2)	43.6 (39.2-48.2)	47.3 (43.4-51.2)	46.9 (42.9-51.0)	50.6 (47.0-54.2)	48.6 (44.4-52.9)
Medicaid		32.3 (25.0-40.7)	42.3 (32.9-52.3)	44.8 (36.4-53.6)	54.7 (44.7-64.3)	49.3 (42.4-56.2)	53.3 (47.1-59.4)
Medicare		32.3 (27.9-37.1)	44.6 (38.6-50.9)	52.3 (47.2-57.4)	55.6 (49.4-61.7)	58.0 (53.3-62.7)	61.4 (57.8-64.9)
Other (Public/Private)		36.7 (30.5-43.2)	52.5 (46.7-58.2)	61.0 (54.6-67.0)	63.4 (56.3-69.9)	57.3 (49.2-65.0)	50.3 (22.8-77.6)
Family income level							
Poor (<100% of FPL)		34.7 (28.9-40.9)	41.8 (36.2-47.6)	46.3 (40.4-52.2)	48.1 (42.1-54.2)	50.7 (45.3-56.0)	52.1 (46.4-57.8)
Near Poor (100-124% of FPL)		27.6 (19.8-37.0)	38.7 (30.5-47.7)	45.1 (37.7-52.8)	52.8 (43.1-62.2)	57.5 (48.9-65.7)	49.5 (41.5-57.4)
Low Income (125-199% of FPL)		28.5 (23.2-34.5)	44.7 (39.1-50.5)	47.5 (41.9-53.2)	48.6 (43.0-54.3)	44.8 (39.6-50.0)	49.1 (43.7-54.4)
Middle Income (200-399% of FPL)		31.7 (27.1-36.6)	42.2 (37.4-47.1)	51.0 (46.5-55.4)	46.6 (41.8-51.5)	49.6 (45.4-53.9)	54.0 (49.2-58.6)
High Income (≥400% of FPL)		37.6 (32.6-42.8)	49.0 (43.9-54.0)	51.2 (46.7-55.8)	53.9 (48.7-59.1)	54.6 (50.2-59.0)	54.0 (49.6-58.3)
Region							

Northeast	33.4 (25.9-41.8)	48.3 (41.7-54.8)	55.5 (49.9-60.9)	56.9 (49.9-63.6)	51.6 (46.6-56.6)	52.2 (45.1-59.2)
Midwest	30.1 (25.0-35.7)	48.34 (42.3-54.6)	51.0 (44.9-57.1)	50.5 (43.7-57.2)	53.4 (47.3-59.4)	60.5 (54.6-66.1)
South	34.4 (30.5-38.6)	41.7 (37.1-46.4)	45.5 (41.1-50.0)	46.0 (41.5-50.6)	50.8 (46.2-55.4)	47.9 (43.3-52.5)
West	34.6 (28.6-41.1)	43.6 (37.9-49.4)	51.0 (45.0-56.0)	51.5 (44.7-58.1)	50.0 (44.2-55.7)	54.6 (49.8-59.2)
GCCI**						
1	34.0 (31.0-37.1)	44.1 (40.9-47.3)	48.8 (45.7-52.0)	48.0 (44.6-51.5)	50.2 (47.3-53.0)	51.3 (48.5-54.1)
2	31.4 (24.7-39.0)	49.6 (42.3-57.0)	54.5 (47.4-61.4)	52.7 (46.4-58.8)	52.0 (43.0-60.9)	57.8 (50.8-64.6)
3	27.7 (18.4-39.3)	45.2 (34.5-56.3)	49.7 (41.6-57.9)	63.7 (55.0-71.6)	59.7 (50.5-68.2)	58.6 (49.8-66.9)

Abbreviations: CHD, Coronary Heart Disease; FPL, Federal Poverty Level; GCCI, Grouped Charlson Comorbidity Index; MEPS, Medical Expenditure Panel Survey; PAD, Peripheral Arterial Disease

Note:

* p-value for year effect on population characteristics were computed using linear regression for mean age and Pearson Chi-squared test for proportions

**GCCI was modified for this study by excluding any cardiovascular disease or diabetes from the comorbidity index computation

eTable 4d. Variation in Trends in Any Statin Utilization Among Non-ASCVD, Non-diabetic U.S. Adults With Dyslipidemia, MEPS 2002-2013

	Cycle N (Millions)	2002-2003 37.2	2004-2005 35.1	2006-2007 31.4	2008-2009 35.9	2010-2011 36.2	2012-2013 38.7
Age Category							
40-64		22.9 (21.3-24.6)	32.7 (30.9-34.6)	41.4 (39.2-43.7)	38.0 (36.0-40.0)	40.7 (38.6-42.9)	39.5 (37.1-41.9)
65-74		42.3 (38.7-45.9)	58.6 (54.9-62.3)	61.3 (57.6-64.9)	57.6 (53.2-61.8)	60.7 (57.2-64.1)	63.5 (60.0-66.8)
75 or Older		46.2 (41.4-51.1)	57.9 (52.7-63.0)	68.9 (63.5-73.8)	59.4 (54.1-64.5)	60.8 (56.4-65.1)	60.7 (55.6-65.6)
Sex							
Male		30.1 (28.1-32.1)	41.3 (38.9-43.8)	49.4 (46.6-52.1)	42.7 (40.1-45.3)	47.9 (45.3-50.6)	46.2 (43.8-48.7)
Female		26.3 (24.5-28.3)	38.4 (36.2-40.6)	47.9 (45.5-50.3)	44.9 (42.5-47.4)	46.0 (43.7-48.2)	47.6 (45.0-50.3)
Race/ethnicity							
Non-Hispanic White		30.0 (28.4-31.7)	42.3 (40.3-44.4)	50.7 (48.5-52.8)	47.2 (44.9-49.6)	50.2 (48.0-52.4)	50.0 (47.7-52.2)
Non-Hispanic Black		19.1 (16.2-22.4)	29.5 (25.9-33.5)	39.3 (34.5-44.3)	36.6 (33.0-40.5)	37.1 (32.9-41.5)	42.0 (38.0-46.1)
Asian		27.7 (21.3-35.3)	35.8 (28.3-44.0)	53.0 (45.7-60.1)	38.9 (32.9-45.3)	42.3 (34.9-50.1)	37.1 (30.2-44.6)
Hispanic		16.6 (14.1-19.6)	26.5 (22.4-31.1)	36.5 (31.2-42.1)	25.1 (22.0-28.5)	32.5 (28.6-36.6)	33.0 (30.2-36.0)
Other		30.0 (22.1-39.3)	36.5 (27.3-46.9)	36.5 (31.2-42.1)	44.0 (31.6-57.2)	39.0 (26.2-53.6)	41.6 (28.0-56.7)
Insurance status							
Uninsured		10.5 (7.8-14.0)	18.1 (13.8-23.2)	30.8 (25.5-36.6)	20.9 (16.7-25.9)	26.0 (21.1-31.5)	21.9 (18.3-26.0)
Private only		23.8 (22.0-25.6)	34.1 (32.0-36.3)	42.6 (40.2-45.1)	40.2 (38.0-42.4)	42.7 (40.3-45.2)	41.7 (39.1-44.4)
Medicaid		19.7 (14.7-25.9)	30.5 (24.3-37.5)	41.5 (33.2-50.3)	26.2 (19.4-34.3)	38.8 (33.1-44.8)	40.1 (34.2-46.3)
Medicare		34.7 (30.6-39.1)	50.2 (45.5-54.8)	58.9 (54.4-63.3)	53.3 (48.7-57.7)	59.9 (56.6-63.1)	62.4 (59.5-65.1)
Other (Public/Private)		46.3 (42.9-49.8)	59.4 (55.1-63.5)	64.1 (60.5-67.6)	60.5 (56.0-64.8)	59.4 (54.7-64.0)	70.7 (44.8-87.8)
Family income level							
Poor (<100% of FPL)		24.0 (20.5-27.9)	37.2 (32.0-42.7)	50.0 (45.2-54.7)	41.4 (36.2-46.8)	42.0 (37.4-46.6)	40.9 (36.1-45.9)
Near Poor (100-124% of FPL)		31.7 (25.1-39.2)	27.3 (21.8-33.7)	56.3 (49.1-63.2)	40.1 (32.2-48.6)	43.2 (36.8-49.9)	45.4 (38.1-53.0)
Low Income (125-199% of FPL)		31.0 (26.9-35.4)	42.9 (38.7-47.2)	47.6 (42.9-52.3)	39.9 (35.7-44.3)	45.8 (41.2-50.4)	48.1 (44.1-52.1)
Middle Income (200-399% of FPL)		25.4 (23.2-27.7)	37.0 (34.1-40.1)	46.7 (43.7-49.8)	41.1 (38.0-44.2)	46.8 (44.1-49.5)	44.7 (41.1-48.4)
High Income (≥400% of FPL)		29.2 (27.2-31.2)	41.6 (39.0-44.2)	49.1 (46.6-51.7)	46.7 (44.2-49.3)	48.3 (45.4-51.2)	49.1 (46.5-51.7)
Region							

Northeast	30.8 (27.5-34.3)	41.4 (36.9-46.1)	53.4 (48.8-57.9)	44.9 (40.9-48.9)	49.9 (46.6-53.3)	49.4 (43.7-55.2)
Midwest	29.2 (26.3-32.3)	42.5 (38.9-46.2)	50.5 (47.0-53.9)	47.1 (43.2-51.1)	49.5 (45.3-53.7)	49.8 (46.1-53.5)
South	28.3 (25.8-30.9)	38.5 (36.0-41.1)	46.8 (43.7-50.0)	45.4 (42.2-48.7)	46.0 (43.0-49.1)	46.8 (43.4-50.3)
West	23.2 (27.2-31.2)	37.1 (33.2-41.1)	45.2 (41.7-48.7)	37.3 (33.6-41.1)	48.3 (45.4-51.2)	42.5 (39.3-45.8)
GCCI**						
1	28.0 (26.6-29.5)	39.5 (37.6-41.4)	47.6 (45.6-49.7)	42.8 (40.8-44.9)	46.1 (44.0-48.1)	46.2 (44.3-48.2)
2	26.0 (22.1-30.3)	37.9 (33.3-42.7)	51.7 (47.3-56.1)	44.5 (39.4-49.8)	49.6 (44.3-54.9)	48.2 (42.9-53.6)
3	33.1 (27.0-39.8)	50.1 (43.4-56.9)	58.9 (52.3-65.2)	54.9 (47.2-62.4)	52.9 (45.8-59.9)	56.6 (48.8-64.0)

Abbreviations: CHD, Coronary Heart Disease; FPL, Federal Poverty Level; GCCI, Grouped Charlson Comorbidity Index; MEPS, Medical Expenditure Panel Survey; PAD, Peripheral Arterial Disease

Note:

* p-value for year effect on population characteristics were computed using linear regression for mean age and Pearson Chi-squared test for proportions

**GCCI was modified for this study by excluding any cardiovascular disease or diabetes from the comorbidity index computation

**eTable 5a. Odds Ratios for the Use of Statins Among Adults With ASCVD, MEPS
2002-2013**

	Odds Ratio (95% CI)		
	Univariate	Model 1	Model 2
Cycle			
2002-2003	1.00 (ref)	1.00 (ref)	1.00 (ref)
2004-2005	1.39 (1.21-1.60)	1.42 (1.23-1.64)	1.43 (1.24-1.65)
2006-2007	1.37 (1.19-1.57)	1.41 (1.22-1.62)	1.43 (1.23-1.65)
2008-2009	1.36 (1.19-1.56)	1.41 (1.23-1.63)	1.43 (1.24-1.66)
2010-2011	1.51 (1.32-1.73)	1.55 (1.35-1.78)	1.55 (1.33-1.79)
2012-2013	1.40 (1.22-1.60)	1.44 (1.25-1.65)	1.53 (1.33-1.76)
Age, yrs			
40-64	1.00 (ref)	1.00 (ref)	1.00 (ref)
65-74	1.81 (1.64-2.00)	1.79 (1.62-1.98)	1.49 (1.25-1.78)
75 & Above	1.29 (1.17-1.43)	1.34 (1.21-1.48)	1.19 (0.99-1.42)
Female (versus Male)	0.59 (0.54-0.64)	0.58 (0.53-0.63)	0.65 (0.59-0.71)
Race/Ethnicity			
Non-Hispanic White	1.00 (ref)	1.00 (ref)	1.00 (ref)
Non-Hispanic Black	0.58 (0.52-0.65)	0.64 (0.57-0.72)	0.67 (0.59-0.76)
Hispanic	0.59 (0.53-0.67)	0.64 (0.57-0.72)	0.64 (0.56-0.74)
Asian	1.18 (0.93-1.48)	1.17 (0.92-1.48)	1.09 (0.86-1.39)
Family Income Level			
Poor (<100% of FPL)	1.00 (ref)	1.00 (ref)	1.00 (ref)
Near Poor (100-124% of FPL)	1.06 (0.90-1.25)	0.98 (0.83-1.16)	0.96 (0.80-1.14)
Low Income (125-199% of FPL)	1.19 (1.06-1.35)	1.07 (0.95-1.21)	1.01 (0.89-1.14)
Middle Income (200-399% of FPL)	1.31 (1.18-1.46)	1.15 (1.04-1.28)	1.07 (0.95-1.21)
High Income (>=400% of FPL)	1.76 (1.57-1.98)	1.49 (1.33-1.69)	1.34 (1.17-1.53)
Health Insurance			
Uninsured	1.00 (ref)	1.00 (ref)	1.00 (ref)
Private only	2.75 (2.30-3.28)	2.60 (2.18-3.10)	2.22 (1.87-2.64)
Medicaid	2.03 (1.62-2.56)	2.16 (1.72-2.73)	2.01 (1.62-2.50)
Medicare	3.15 (2.69-3.70)	3.41 (2.80-4.15)	2.24 (1.78-2.80)
Education			
<High school	1.00 (ref)	1.00 (ref)	1.00 (ref)
High school/GED equivalent	1.12 (0.99-1.25)	1.10 (0.97-1.25)	1.06 (0.93-1.21)
Some college or higher	1.28 (1.14-1.43)	1.19 (1.06-1.35)	1.06 (0.93-1.21)
Region			
Northeast	1.00 (ref)	1.00 (ref)	1.00 (ref)
Midwest	0.98 (0.85-1.12)	0.97 (0.84-1.12)	1.04 (0.89-1.19)
South	0.85 (0.74-0.97)	0.87 (0.76-0.99)	0.92 (0.79-1.05)
West	0.86 (0.74-1.01)	0.89 (0.76-1.04)	0.92 (0.79-1.08)
GCCI*			
0	1.00 (ref)	1.00 (ref)	1.00 (ref)
1	1.06 (0.95-1.17)	1.15 (1.04-1.28)	1.08 (0.97-1.21)
>=2	1.12 (0.99-1.28)	1.05 (0.91-1.20)	0.96 (0.83-1.09)

Abbreviations: CHD, Coronary Heart Disease; FPL, Federal Poverty Level; GCCI, Grouped Charlson Comorbidity Index GED, General Education Development; MEPS, Medical Expenditure Panel Survey; PAD, Peripheral Arterial Disease

Model 1: Age, Sex, and Race/ethnicity along with the univariate predictor of statin use included in the model

Model 2: All predictor variables were included in this model

*GCCCI was modified for this study by excluding any cardiovascular disease or diabetes from the comorbidity index computation

eTable 5b. Odds Ratios for the Use of Statins Among Adults Without ASCVD, MEPS 2002-2013

	Odds Ratio (95% CI)		
	Univariate	Model 1	Model 2
Cycle			
2002-2003	1.00 (ref)	1.00 (ref)	1.00 (ref)
2004-2005	1.39 (1.30-1.49)	1.41 (1.32-1.51)	1.40 (1.30-1.50)
2006-2007	1.56 (1.45-1.68)	1.59 (1.48-1.72)	1.56 (1.44-1.68)
2008-2009	1.66 (1.53-1.81)	1.74 (1.60-1.89)	1.69 (1.55-1.83)
2010-2011	1.78 (1.65-1.93)	1.85 (1.71-2.01)	1.80 (1.66-1.95)
2012-2013	1.85 (1.71-2.00)	1.89 (1.75-2.06)	1.88 (1.73-2.04)
Age, yrs			
40-64	1.00 (ref)	1.00 (ref)	1.00 (ref)
65-74	3.20 (3.02-3.39)	3.19 (3.01-3.38)	1.82 (1.62-2.06)
75 & Above	3.07 (2.87-3.29)	3.07 (2.87-3.29)	1.87 (1.64-2.13)
Female (versus Male)	0.94 (0.90-0.98)	0.86 (0.83-0.90)	
Race/Ethnicity			
Non-Hispanic White	1.00 (ref)	1.00 (ref)	1.00 (ref)
Non-Hispanic Black	0.71 (0.66-0.75)	0.76 (0.71-0.81)	0.66 (0.61-0.71)
Hispanic	0.62 (0.58-0.67)	0.68 (0.64-0.73)	0.70 (0.65-0.76)
Asian	0.81 (0.71-0.93)	0.86 (0.76-0.97)	0.89 (0.78-1.00)
Family Income Level			
Poor (<100% of FPL)	1.00 (ref)	1.00 (ref)	1.00 (ref)
Near poor (100-124% of FPL)	1.16 (1.05-1.28)	0.95 (0.87-1.05)	0.94 (0.84-1.05)
Low income (125-199% of FPL)	1.09 (1.01-1.18)	0.94 (0.87-1.02)	0.96 (0.88-1.05)
Middle income (200-399% of FPL)	0.99 (0.93-1.07)	0.98 (0.91-1.05)	0.98 (0.91-1.06)
High income (≥400% of FPL)	1.13 (1.05-1.21)	1.17 (1.09-1.26)	1.20 (1.11-1.31)
Health Insurance			
Uninsured	1.00 (ref)	1.00 (ref)	1.00 (ref)
Private only	2.69 (2.47-2.94)	2.60 (2.38-2.85)	2.44 (2.23-2.68)
Medicaid	3.35 (2.98-3.77)	3.44 (3.06-3.88)	2.82 (2.49-3.19)
Medicare	7.55 (6.81-8.36)	6.04 (5.34-6.83)	3.42 (2.95-3.97)
Education			
<High school	1.00 (ref)	1.00 (ref)	1.00 (ref)
High school/GED equivalent	0.95 (0.88-1.02)	1.05 (0.96-1.14)	1.05 (0.96-1.15)
Some college or higher	0.89 (0.82-0.96)	1.07 (0.98-1.17)	1.01 (0.92-1.11)
Region			
Northeast	1.00 (ref)	1.00 (ref)	1.00 (ref)
Midwest	0.96 (0.89-1.05)	0.95 (0.87-1.03)	0.94 (0.87-1.02)
South	0.93 (0.86-0.99)	0.94 (0.87-1.01)	0.95 (0.88-1.03)
West	0.80 (0.74-0.87)	0.84 (0.77-0.91)	0.84 (0.77-0.91)
History of Diabetes	4.96 (4.68-5.25)	4.82 (4.53-5.12)	4.71 (4.43-5.02)
GCCI*			
0	1.00 (ref)	1.00 (ref)	1.00 (ref)
1	1.42 (1.33-1.51)	1.38 (1.29-1.47)	1.22 (1.13-1.31)
≥2	1.94 (1.77-2.12)	1.48 (1.35-1.62)	1.21 (1.09-1.33)

Abbreviations: CHD, Coronary Heart Disease; FPL, Federal Poverty Level; GCCI, Grouped Charlson Comorbidity Index GED, General Education Development; MEPS, Medical Expenditure Panel Survey; PAD, Peripheral Arterial Disease

Model 1: Age, Sex, and Race/ethnicity along with the univariate predictor of statin use included in the model

Model 2: All predictor variables were included in this model

*GCCI was modified for this study by excluding any cardiovascular disease or diabetes from the comorbidity index computation

eTable 5c. Odds Ratios for the Use of Statins Among ASCVD Adults With CHD, MEPS 2002-2013

	Odds Ratio (95% CI)		
	Univariate	Model 1	Model 2
Cycle			
2002-2003	1.00 (ref)	1.00 (ref)	1.00 (ref)
2004-2005	1.36 (1.18-1.58)	1.38 (1.19-1.60)	1.39 (1.19-1.62)
2006-2007	1.41 (1.21-1.65)	1.45 (1.23-1.71)	1.47 (1.25-1.74)
2008-2009	1.26 (1.08-1.47)	1.31 (1.12-1.54)	1.35 (1.14-1.59)
2010-2011	1.45 (1.24-1.69)	1.49 (1.27-1.75)	1.50 (1.27-1.78)
2012-2013	1.34 (1.16-1.55)	1.38 (1.19-1.60)	1.49 (1.27-1.75)
Age, yrs			
40-64	1.00 (ref)	1.00 (ref)	1.00 (ref)
65-74	1.67 (1.49-1.88)	1.63 (1.45-1.82)	1.46 (1.19-1.79)
75 & Above	1.23 (1.09-1.38)	1.27 (1.13-1.42)	1.22 (0.99-1.49)
Female (versus Male)	0.55 (0.50-0.61)	0.55 (0.49-0.61)	0.59 (0.53-0.65)
Race/Ethnicity			
Non-Hispanic White	1.00 (ref)	1.00 (ref)	1.00 (ref)
Non-Hispanic Black	0.55 (0.48-0.62)	0.61 (0.53-0.69)	0.62 (0.54-0.72)
Hispanic	0.52 (0.46-0.59)	0.56 (0.49-0.64)	0.59 (0.51-0.69)
Asian	1.19 (0.92-1.54)	1.20 (0.93-1.55)	1.09 (0.84-1.43)
Family Income Level			
Poor (<100% of FPL)	1.00 (ref)	1.00 (ref)	1.00 (ref)
Near poor (100-124% of FPL)	1.09 (0.92-1.31)	1.02 (0.84-1.22)	0.98 (0.81-1.19)
Low income (125-199% of FPL)	1.19 (1.04-1.37)	1.06 (0.93-1.22)	0.99 (0.87-1.15)
Middle income (200-399% of FPL)	1.33 (1.18-1.49)	1.15 (1.02-1.29)	1.04 (0.92-1.19)
High income (≥400% of FPL)	1.92 (1.69-2.18)	1.58 (1.39-1.79)	1.37 (1.19-1.59)
Health Insurance			
Uninsured	1.00 (ref)	1.00 (ref)	1.00 (ref)
Private only	2.83 (2.30-3.48)	2.59 (2.11-3.19)	2.17 (1.77-2.66)
Medicaid	1.95 (1.50-2.53)	2.07 (1.59-2.67)	1.91 (1.49-2.44)
Medicare	2.91 (2.41-3.52)	2.99 (2.37-3.79)	1.97 (1.50-2.59)
Education			
<High school	1.00 (ref)	1.00 (ref)	1.00 (ref)
High school/GED equivalent	1.19 (1.05-1.36)	1.15 (0.99-1.32)	1.06 (0.91-1.23)
Some college or higher	1.42 (1.25-1.62)	1.29 (1.13-1.48)	1.08 (0.93-1.27)
Region			
Northeast	1.00 (ref)	1.00 (ref)	1.00 (ref)
Midwest	0.99 (0.84-1.17)	0.97 (0.82-1.14)	1.02 (0.85-1.21)
South	0.82 (0.70-0.95)	0.83 (0.71-0.96)	0.87 (0.74-1.02)
West	0.85 (0.72-1.02)	0.88 (0.74-1.05)	0.89 (0.75-1.07)
GCCI*			
0	1.00 (ref)	1.00 (ref)	1.00 (ref)
1	0.99 (0.88-1.11)	1.08 (0.96-1.22)	1.06 (0.94-1.21)
≥2	1.12 (0.98-1.28)	1.05 (0.91-1.21)	0.99 (0.86-1.16)

Abbreviations: CHD, Coronary Heart Disease; FPL, Federal Poverty Level; GCCI, Grouped Charlson Comorbidity Index GED, General Education Development; MEPS, Medical Expenditure Panel Survey; PAD, Peripheral Arterial Disease

Model 1: Age, Sex, and Race/ethnicity along with the univariate predictor of statin use included in the model

Model 2: All predictor variables were included in this model

*GCCCI was modified for this study by excluding any cardiovascular disease or diabetes from the comorbidity index computation

eTable 5d. Odds Ratios for the Use of Statins Among ASCVD Adults With Stroke and/or PAD, MEPS 2002-2013

	Odds Ratio (95% CI)		
	Univariate	Model 1	Model 2
Cycle			
2002-2003	1.00 (ref)	1.00 (ref)	1.00 (ref)
2004-2005	1.49 (1.22-1.82)	1.48 (1.19-1.82)	1.45 (1.17-1.80)
2006-2007	1.39 (1.13-1.71)	1.41 (1.14-1.76)	1.43 (1.14-1.79)
2008-2009	1.65 (1.34-2.03)	1.68 (1.36-2.08)	1.72 (1.38-2.14)
2010-2011	1.58 (1.31-1.91)	1.66 (1.37-2.00)	1.69 (1.36-2.09)
2012-2013	1.64 (1.33-2.03)	1.74 (1.39-2.16)	1.84 (1.49-2.29)
Age, yrs			
40-64	1.00 (ref)	1.00 (ref)	1.00 (ref)
65-74	2.01 (1.72-2.34)	2.00 (1.72-2.34)	1.41 (1.09-1.82)
75 & Above	1.48 (1.29-1.69)	1.49 (1.29-1.70)	1.12 (0.87-1.43)
Female (versus Male)	0.78 (0.69-0.87)	0.77 (0.68-0.87)	0.82 (0.72-0.93)
Race/Ethnicity			
Non-Hispanic White	1.00 (ref)	1.00 (ref)	1.00 (ref)
Non-Hispanic Black	0.73 (0.63-0.85)	0.79 (0.68-0.92)	0.79 (0.66-0.93)
Hispanic	0.75 (0.61-0.93)	0.85 (0.68-1.06)	0.80 (0.63-1.02)
Asian	1.24 (0.89-1.73)	0.98 (0.67-1.46)	1.27 (0.88-1.85)
Family Income Level			
Poor (<100% of FPL)	1.00 (ref)	1.00 (ref)	1.00 (ref)
Near poor (100-124% of FPL)	1.02 (0.83-1.25)	0.88 (0.71-1.10)	0.87 (0.69-1.09)
Low income (125-199% of FPL)	1.19 (1.02-1.38)	0.98 (0.84-1.16)	0.97 (0.81-1.16)
Middle income (200-399% of FPL)	1.28 (1.11-1.48)	1.09 (0.94-1.27)	1.12 (0.94-1.33)
High income (≥400% of FPL)	1.40 (1.19-1.64)	1.16 (0.97-1.38)	1.21 (0.99-1.49)
Health Insurance			
Uninsured	1.00 (ref)	1.00 (ref)	1.00 (ref)
Private only	2.70 (1.99-3.65)	2.62 (1.91-3.58)	2.29 (1.67-3.12)
Medicaid	2.93 (2.12-4.04)	3.06 (2.16-4.34)	2.39 (1.69-3.39)
Medicare	4.58 (3.46-6.06)	4.63 (3.33-6.45)	2.85 (2.00-4.06)
Education			
<High school	1.00 (ref)	1.00 (ref)	1.00 (ref)
High school/GED equivalent	0.93 (0.79-1.09)	0.97 (0.82-1.15)	1.01 (0.84-1.21)
Some college or higher	0.98 (0.81-1.19)	0.97 (0.79-1.18)	0.94 (0.76-1.16)
Region			
Northeast	1.00 (ref)	1.00 (ref)	1.00 (ref)
Midwest	0.95 (0.78-1.16)	0.98 (0.79-1.21)	1.01 (0.82-1.24)
South	0.91 (0.75-1.09)	0.96 (0.78-1.17)	0.97 (0.79-1.18)
West	0.95 (0.76-1.19)	0.97 (0.77-1.22)	0.97 (0.76-1.22)
GCCI*			
0	1.00 (ref)	1.00 (ref)	1.00 (ref)
1	1.31 (1.12-1.53)	1.34 (1.14-1.58)	1.18 (0.99-1.41)
≥2	1.23 (1.03-1.48)	1.13 (0.93-1.37)	0.94 (0.77-1.14)

Abbreviations: CHD, Coronary Heart Disease; FPL, Federal Poverty Level; GCCI, Grouped Charlson Comorbidity Index GED, General Education Development; MEPS, Medical Expenditure Panel Survey; PAD, Peripheral Arterial Disease

Model 1: Age, Sex, and Race/ethnicity along with the univariate predictor of statin use included in the model

Model 2: All predictor variables were included in this model

*GCCCI was modified for this study by excluding any cardiovascular disease or diabetes from the comorbidity index computation

eTable 5e. Odds Ratios for the Use of Statins Among Non-ASCVD Adults With Diabetes, MEPS 2002-2013

	Odds Ratio (95% CI)		
	Univariate	Model 1	Model 2
Cycle			
2002-2003	1.00 (ref)	1.00 (ref)	1.00 (ref)
2004-2005	1.61 (1.37-1.89)	1.63 (1.39-1.92)	1.61 (1.37-1.90)
2006-2007	1.96 (1.68-2.29)	1.98 (1.69-2.32)	1.98 (1.69-2.32)
2008-2009	2.01 (1.69-2.39)	2.06 (1.73-2.46)	2.06 (1.73-2.46)
2010-2011	2.11 (1.78-2.49)	2.16 (1.83-2.56)	2.28 (1.91-2.71)
2012-2013	2.22 (1.89-2.62)	2.25 (1.91-2.66)	2.36 (1.99-2.79)
Age, yrs			
40-64	1.00 (ref)	1.00 (ref)	1.00 (ref)
65-74	1.64 (1.47-1.83)	1.62 (1.45-1.81)	1.37 (1.11-1.69)
75 & Above	1.47 (1.29-1.67)	1.43 (1.26-1.63)	1.25 (0.99-1.56)
Female (versus Male)	1.02 (0.92-1.12)	0.99 (0.90-1.09)	1.02 (0.93-1.13)
Race/Ethnicity			
Non-Hispanic White	1.00 (ref)	1.00 (ref)	1.00 (ref)
Non-Hispanic Black	0.61 (0.54-0.70)	0.62 (0.55-0.71)	0.66 (0.58-0.76)
Hispanic	0.67 (0.59-0.75)	0.69 (0.62-0.78)	0.78 (0.68-0.88)
Asian	0.98 (0.79-1.22)	0.99 (0.79-1.23)	0.95 (0.76-1.19)
Family Income Level			
Poor (<100% of FPL)	1.00 (ref)	1.00 (ref)	1.00 (ref)
Near poor (100-124% of FPL)	0.97 (0.83-1.14)	0.90 (0.77-1.06)	0.93 (0.79-1.09)
Low income (125-199% of FPL)	0.93 (0.80-1.07)	0.86 (0.75-1.00)	0.85 (0.73-0.99)
Middle income (200-399% of FPL)	1.02 (0.89-1.16)	0.98 (0.85-1.12)	0.92 (0.79-1.07)
High income (≥400% of FPL)	1.19 (1.05-1.34)	1.16 (1.02-1.31)	1.03 (0.89-1.19)
Health Insurance			
Uninsured	1.00 (ref)	1.00 (ref)	1.00 (ref)
Private only	2.26 (1.91-2.67)	2.15 (1.81-2.55)	2.06 (1.72-2.48)
Medicaid	2.43 (1.99-2.97)	2.43 (1.98-2.97)	2.34 (1.89-2.90)
Medicare	3.07 (2.58-3.66)	2.72 (2.19-3.38)	2.25 (1.74-2.92)
Education			
<High school	1.00 (ref)	1.00 (ref)	1.00 (ref)
High school/GED equivalent	1.06 (0.93-1.20)	1.04 (0.91-1.19)	1.03 (0.89-1.19)
Some college or higher	1.24 (1.08-1.42)	1.26 (1.08-1.46)	1.11 (0.94-1.30)
Region			
Northeast	1.00 (ref)	1.00 (ref)	1.00 (ref)
Midwest	0.99 (0.84-1.16)	0.97 (0.83-1.13)	0.94 (0.81-1.09)
South	0.80 (0.69-0.94)	0.82 (0.70-0.95)	0.87 (0.75-1.01)
West	0.91 (0.78-1.06)	0.98 (0.84-1.15)	0.96 (0.82-1.12)
GCCI*			
0	1.00 (ref)	1.00 (ref)	1.00 (ref)
1	1.19 (1.04-1.36)	1.17 (1.02-1.35)	1.08 (0.94-1.25)
≥2	1.36 (1.13-1.63)	1.24 (1.03-1.49)	1.09 (0.91-1.32)

Abbreviations: CHD, Coronary Heart Disease; FPL, Federal Poverty Level; GCCI, Grouped Charlson Comorbidity Index GED, General Education Development; MEPS, Medical Expenditure Panel Survey; PAD, Peripheral Arterial Disease

Model 1: Age, Sex, and Race/ethnicity along with the univariate predictor of statin use included in the model

Model 2: All predictor variables were included in this model

*GCCI was modified for this study by excluding any cardiovascular disease or diabetes from the comorbidity index computation

eTable 5f. Odds Ratios for the Use of Statin Among Non-ASCVD, Non-diabetic Adults With Dyslipidemia, MEPS 2002-2013

	Odds Ratio (95% CI)		
	Univariate	Model 1	Model 2
Cycle			
2002-2003	1.00 (ref)	1.00 (ref)	1.00 (ref)
2004-2005	1.69 (1.55-1.85)	1.69 (1.55-1.86)	1.71 (1.57-1.87)
2006-2007	2.42 (2.20-2.67)	2.38 (2.15-2.63)	2.43 (2.19-2.69)
2008-2009	2.00 (1.80-2.22)	2.00 (1.81-2.22)	2.07 (1.87-2.29)
2010-2011	2.27 (2.04-2.51)	2.26 (2.04-2.51)	2.30 (2.08-2.55)
2012-2013	2.27 (2.04-2.52)	2.25 (2.02-2.49)	2.28 (2.04-2.54)
Age, yrs			
40-64	1.00 (ref)	1.00 (ref)	1.00 (ref)
65-74	2.49 (2.29-2.69)	2.49 (2.29-2.69)	1.88 (1.56-2.25)
75 & Above	2.66 (2.40-2.93)	2.67 (2.41-2.96)	2.09 (1.72-2.54)
Female (versus Male)	0.95 (0.89-1.01)	0.85 (0.79-0.90)	0.86 (0.80-0.91)
Race/Ethnicity			
Non-Hispanic White	1.00 (ref)	1.00 (ref)	1.00 (ref)
Non-Hispanic Black	0.62 (0.57-0.68)	0.66 (0.60-0.73)	0.68 (0.62-0.75)
Hispanic	0.49 (0.45-0.54)	0.54 (0.49-0.59)	0.61 (0.55-0.67)
Asian	0.80 (0.68-0.95)	0.83 (0.71-0.96)	0.88 (0.76-1.03)
Family Income Level			
Poor (<100% of FPL)	1.00 (ref)	1.00 (ref)	1.00 (ref)
Near poor (100-124% of FPL)	1.09 (0.93-1.27)	0.90 (0.77-1.06)	0.86 (0.74-1.01)
Low income (125-199% of FPL)	1.15 (1.03-1.29)	0.99 (0.88-1.11)	0.95 (0.85-1.07)
Middle income (200-399% of FPL)	1.05 (0.95-1.16)	1.00 (0.91-1.11)	0.94 (0.84-1.06)
High income (≥400% of FPL)	1.21 (1.09-1.34)	1.22 (1.10-1.36)	1.13 (1.00-1.27)
Health Insurance			
Uninsured	1.00 (ref)	1.00 (ref)	1.00 (ref)
Private only	2.16 (1.91-2.45)	1.99 (1.75-2.26)	1.91 (1.68-2.19)
Medicaid	1.92 (1.62-2.28)	1.99 (1.67-2.36)	1.89 (1.58-2.26)
Medicare	4.71 (4.12-5.39)	3.13 (2.63-3.71)	2.21 (1.78-2.74)
Education			
<High school	1.00 (ref)	1.00 (ref)	1.00 (ref)
High school/GED equivalent	1.08 (0.97-1.21)	1.06 (0.94-1.21)	0.96 (0.84-1.09)
Some college or higher	1.03 (0.92-1.15)	1.08 (0.95-1.23)	0.89 (0.78-1.02)
Region			
Northeast	1.00 (ref)	1.00 (ref)	1.00 (ref)
Midwest	0.99 (0.89-1.12)	0.98 (0.88-1.09)	0.97 (0.88-1.08)
South	0.90 (0.81-1.01)	0.91 (0.82-1.01)	0.93 (0.84-1.03)
West	0.77 (0.69-0.87)	0.81 (0.72-0.91)	0.79 (0.70-0.88)
GCCI*			
0	1.00 (ref)	1.00 (ref)	1.00 (ref)
1	1.08 (0.99-1.19)	1.08 (0.98-1.19)	1.04 (0.95-1.15)
≥2	1.49 (1.31-1.72)	1.21 (1.05-1.39)	1.15 (0.99-1.33)

Abbreviations: CHD, Coronary Heart Disease; FPL, Federal Poverty Level; GCCI, Grouped Charlson Comorbidity Index GED, General Education Development; MEPS, Medical Expenditure Panel Survey; PAD, Peripheral Arterial Disease

Model 1: Age, Sex, and Race/ethnicity along with the univariate predictor of statin use included in the model

Model 2: All predictor variables were included in this model

*GCCI was modified for this study by excluding any cardiovascular disease or diabetes from the comorbidity index computation

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