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Implications of the 2026 Dyslipidemia Guideline for Primary Prevention Statin Therapy

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IMPORTANCE The 2026 American Heart Association/American College of Cardiology/multisociety guideline on the management of dyslipidemia issued new recommendations on estimating atherosclerotic cardiovascular disease (ASCVD) risk and on populations eligible for statins for primary prevention.

OBJECTIVE To assess the population health impact of the 2026 guideline on primary prevention statin therapy.

DESIGN, SETTING, AND PARTICIPANTS Nationally representative, cross-sectional sample of nonpregnant adults aged 30 to 79 years without known ASCVD, who participated in the National Health and Nutrition Examination Survey from 2017 to 2023. Data were analyzed from March to May 2026.

MAIN OUTCOMES AND MEASURES Changes in eligibility for primary prevention statin therapy, comparing the 2026 and 2018 lipid guidelines.

RESULTS The weighted sample included 4366 NHANES participants representative of 154.5 million US adults (weighted mean age, 51 years; 52.0% female). Of these, 5.5% (95% CI, 4.7%-6.6%) had untreated low-density lipoprotein cholesterol below 70 mg/dL, 17.8% (95% CI, 16.3%-19.5%) reported currently taking statins, and 8.6% (95% CI, 7.6%-9.8%) met criteria for statin eligibility independent of ASCVD risk estimation based on a low-density lipoprotein cholesterol of 190 mg/dL or greater, diabetes, or chronic kidney disease. The remaining 68.0% of patients (95% CI, 65.9%-70.0%) met guideline criteria for using ASCVD risk estimation to guide statin decisions. In total, an estimated 87.5 million (56.6% [95% CI, 54.2%-58.9%]) nonpregnant US adults aged 30 to 79 years were statin eligible based on the 2026 guideline, including 21.5 million (13.9% [95% CI, 12.5%-15.5%]) who were newly statin eligible. More than 93% of adults aged 70 to 79 years and 85% of adults aged 60 to 69 years are eligible for primary prevention statin therapy compared with 11% of adults aged 30 to 39 years. Newly statin-eligible populations were largely younger and lower risk than populations previously recommended statin therapy (mean estimated 10-year ASCVD risk, 3.1% [95% CI, 2.7%-3.5%] for newly statin-eligible individuals vs 6.1% [95% CI, 5.8%-6.4%] for individuals previously eligible for statin therapy).

CONCLUSIONS AND RELEVANCE The 2026 dyslipidemia guideline substantially expands the US population recommended for primary prevention statin therapy, predominantly in lower-risk individuals.

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Dyslipidemia is a leading modifiable risk factor for atherosclerotic cardiovascular disease (ASCVD). Despite highly effective treatments, over the past 2 decades, average lipid concentrations and use of lipid-lowering therapies have improved only modestly among US adults.[1-3] In 2026, the American Heart Association (AHA) and the American College of Cardiology (ACC), along with multiple other societies, released a new clinical practice guideline on the management of dyslipidemia (hereafter, 2026 guideline), which replaced the 2018 AHA/ACC guideline on the management of blood cholesterol.[4] The 2026 guideline includes updated recommendations on screening, measurement, and management of dyslipidemia for both primary and secondary prevention of ASCVD. For primary prevention, the 2026 guideline continues to focus on the widespread use of health behavior counseling, the estimation of 10-year ASCVD risk to guide treatment decisions, and the preference for statin therapy when lipid-lowering pharmacotherapy is recommended.[4]

The 2026 guideline includes 5 major changes to recommendations for primary prevention of ASCVD, which may impact statin eligibility (**Table 1**). First, the population target for ASCVD risk estimation was expanded from ages 40 to 75 years in the 2018 guideline to ages 30 to 79 years in the 2026 guideline. Second, the 2026 guideline adds stage 3 or higher chronic kidney disease (CKD) and infection with HIV as indications for statin eligibility independent of ASCVD risk estimation, joining the categories of low-density lipoprotein cholesterol (LDL-C) of 190 mg/dL or greater and diabetes as strong (class I) recommendations. Both guidelines recommend against initiation of statins for primary prevention in patients with LDL-C below 70 mg/dL. Third, the 2026 guideline lowers thresholds for ASCVD risk categories, such that low 10-year ASCVD risk is defined as less than 3.0%, borderline risk as 3.0% to less than 5.0%, intermediate risk as 5.0% to less than 10%, and high risk as 10% or greater. Fourth, the 2026 guideline increased the strength of recommendation for statin initiation for individuals with borderline 10-year risk from weak (class IIB) to moderate (class IIA) and added a new moderate recommendation for statin therapy to patients with low 10-year ASCVD risk and either LDL-C of 160 to 189 mg/dL or 30-year ASCVD risk of 10% or greater. Fifth, the 2026 guideline recommends the use of the Predicting Risk of Cardiovascular Disease EVENTs (PREVENT)-ASCVD equations[5] to replace the previously recommended pooled cohort equations (PCEs) for estimation of 10-year ASCVD risk.

Using nationally representative data from the National Health and Nutrition Examination Survey (NHANES), the population health impact of the 2026 guideline regarding statin recommendations was examined. The number of US adults without known ASCVD for whom risk categories and statin eligibility would change based on the 2026 guideline in comparison to the 2018 guideline was estimated.

Key Points

Question How does the 2026 American Heart Association/American College of Cardiology/multisociety guideline on the management of dyslipidemia change the US population eligible for statins for primary prevention?

Findings In this nationally representative study of 4366 US adults aged 30 to 79 years, it was estimated that the 2026 guideline would expand statin eligibility to 21.5 million adults not previously recommended statins. An estimated 87.5 million US adults, 56.6% of the target population, are eligible for statins, including more than 93% of adults aged 70 to 79 years.

Meaning The 2026 dyslipidemia guideline substantially expands the US population eligible for primary prevention statin therapy.

Methods

Data Source

NHANES is conducted regularly by the National Center for Health Statistics, using stratified multistage probability cluster sampling to form a representative sample of the civilian noninstitutionalized US population.[6] We analyzed participants in the 2017 to 2018, 2019 to March 2020, and 2021 to 2023 cycles. This study was exempt from review and informed consent by the Common Rule (45 CFR §46) given its use of publicly available, deidentified data. We followed the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) reporting guideline.

Study Population

NHANES participants aged 30 to 79 years who completed the mobile examination center visit while fasting were included. This age range was chosen because it is the target population of the PREVENT equations and 2026 guideline primary prevention recommendations. The fasting requirement allowed calculation of LDL-C. We excluded pregnant adults, adults with self-reported ASCVD, and participants with missing laboratory or physical examination data used in the PREVENT equations (eFigure 1 in Supplement 1).

ASCVD Risk Estimation

We calculated participants' 10-year ASCVD risk by the PCEs and PREVENT equations. We also calculated 30-year PREVENT-ASCVD risk for individuals aged 30 to 59 years.

The PCEs include inputs for age, sex, race, total and high-density lipoprotein cholesterol levels, systolic blood pressure (BP), antihypertensive medication use, diabetes, and smoking status.[7] Sex, race, smoking status, and antihypertensive medication use were ascertained by participant report. Because the PCEs dichotomize race as Black or White, we grouped all but the non-Hispanic Black participants as White in calculations, consistent with prior studies.[8-10] We collected data on race and ethnicity because the PCEs include them as an input, whereas PREVENT does not. Diabetes was identified by self-reported history or a hemoglobin A_{1c} level of 6.5% or greater. Systolic BP was recorded as the average of up to 3 readings, using a validated oscillometric device.

The PREVENT equations included similar inputs while removing race and adding estimated glomerular filtration rate and statin use.[5] The PREVENT equations also adjust for competing risks of death from noncardiovascular causes.

Serum creatinine level was used to calculate estimated glomerular filtration rate, using the 2021 Chronic Kidney Disease Epidemiology Collaboration creatinine equation,[11] consistent with PREVENT methodology. Statin use was identified by participant self-report that they were currently taking a medication to lower cholesterol. In the 2021 to 2023 cycle, NHANES discontinued in-home review of medications, which has been used in prior studies to identify statin use.[8-10] Comparison of lipid-lowering medication self-report and statin medication use for the 2017 to 2020 cycles, in which both variables were available, demonstrated self-report of cholesterol-lowering medication use to have 79% sensitivity and 97% specificity for statin use. Consistent with clinical practice and prior studies, we included individuals with outlier values of continuous measurements and adjusted outlier measurements to calculator cutoffs (eg, a systolic BP of 205 mm Hg was recategorized to 200 mm Hg, the maximum allowed value).[8-10] The PREVENT equations allow optional predictors of hemoglobin A_{1c}, urine albumin to creatinine ratio, and Social Deprivation Index, which were not included in this analysis.

LDL-C was calculated by NHANES from total cholesterol, triglycerides, and high-density lipoprotein cholesterol, using the Martin-Hopkins equation.[12]

Statistical Analysis

All analyses pooled cycles and used NHANES mobile examination center fasting weights to produce nationally representative estimates with 95% CIs. First, we examined the estimated number and proportion of individuals in each risk classification category by the 2026 guideline and the number and proportion with a strong (class I) or moderate (class IIA) guideline recommendation for statin use. Consistent with the 2026 guideline, we first identified individuals already taking lipid-lowering medications; individuals with untreated LDL-C less than 70 mg/dL for whom statin treatment is not indicated regardless of ASCVD risk; and individuals for whom statin treatment is recommended based on clinical factors independent of ASCVD risk: LDL-C of 190 mg/dL or greater, aged 40 to 75 years with diabetes, or aged 40 to 75 years with stage 3 or higher CKD. We grouped the remaining individuals by 10-year ASCVD risk group (low, borderline, intermediate, or high) and subdivided the low-risk group by the presence of a statin indication (LDL-C 160-189 mg/dL or 30-year ASCVD risk ≥10%).

Second, we examined demographics and clinical characteristics of the study population stratified into 5 statin eligibility categories: newly statin-eligible individuals based on the 2026 guideline, not statin eligible by either guideline, statin eligible by both guidelines, statin eligible by the 2018 but not the 2026 guideline, and currently taking lipid-lowering therapy.

Third, we examined the proportion of the study population in each risk classification category, including currently treated individuals, stratified by age decade and sex.

Fourth, for each statin eligibility and risk classification category, we calculated the mean 10-year PREVENT-ASCVD risk and the proportion newly statin eligible based on the 2026 guideline.

Table 1. Major Recommendations for Consideration of Statin Therapy for Primary Prevention in the 2018 Cholesterol Guideline and 2026 Dyslipidemia Guideline[a]

	2018 Guideline on the Management of Blood Cholesterol	2026 Guideline on the Management of Dyslipidemia
Primary prevention target population	Nonpregnant adults aged 40-75 y	Nonpregnant adults aged 30-79 y
Populations recommended statins independent of ASCVD risk	Adults with LDL-C >190 mg/dL Adults aged 40-75 y with diabetes	Adults with LDL-C >190 mg/dL Adults aged 40-75 y with diabetes Adults aged 40-75 y with stage ≥3 chronic kidney disease Adults aged 40-75 y with HIV
Approach to high- and intermediate-risk patients	Strong recommendation for statin for primary prevention	Strong recommendation for statin for primary prevention
Approach to borderline-risk patients	Weak recommendation for statin for primary prevention	Moderate recommendation for statin for primary prevention
Approach to low-risk patients	Emphasize lifestyle to reduce risk factors for all Statin for primary prevention not recommended	Health behavior counseling for all Moderate recommendation for statin if LDL-C 160-189 mg/dL or PREVENT-ASCVD 30-y risk ≥10%
10-Year ASCVD risk categories	High: ≥20% Intermediate: 7.5% to <20% Borderline: 5.0% to <7.5% Low: <5.0%	High: ≥10% Intermediate: 5.0% to <10% Borderline: 3.0% to <5.0% Low: <3.0%
Risk estimation calculation	PCEs	PREVENT-ASCVD equations

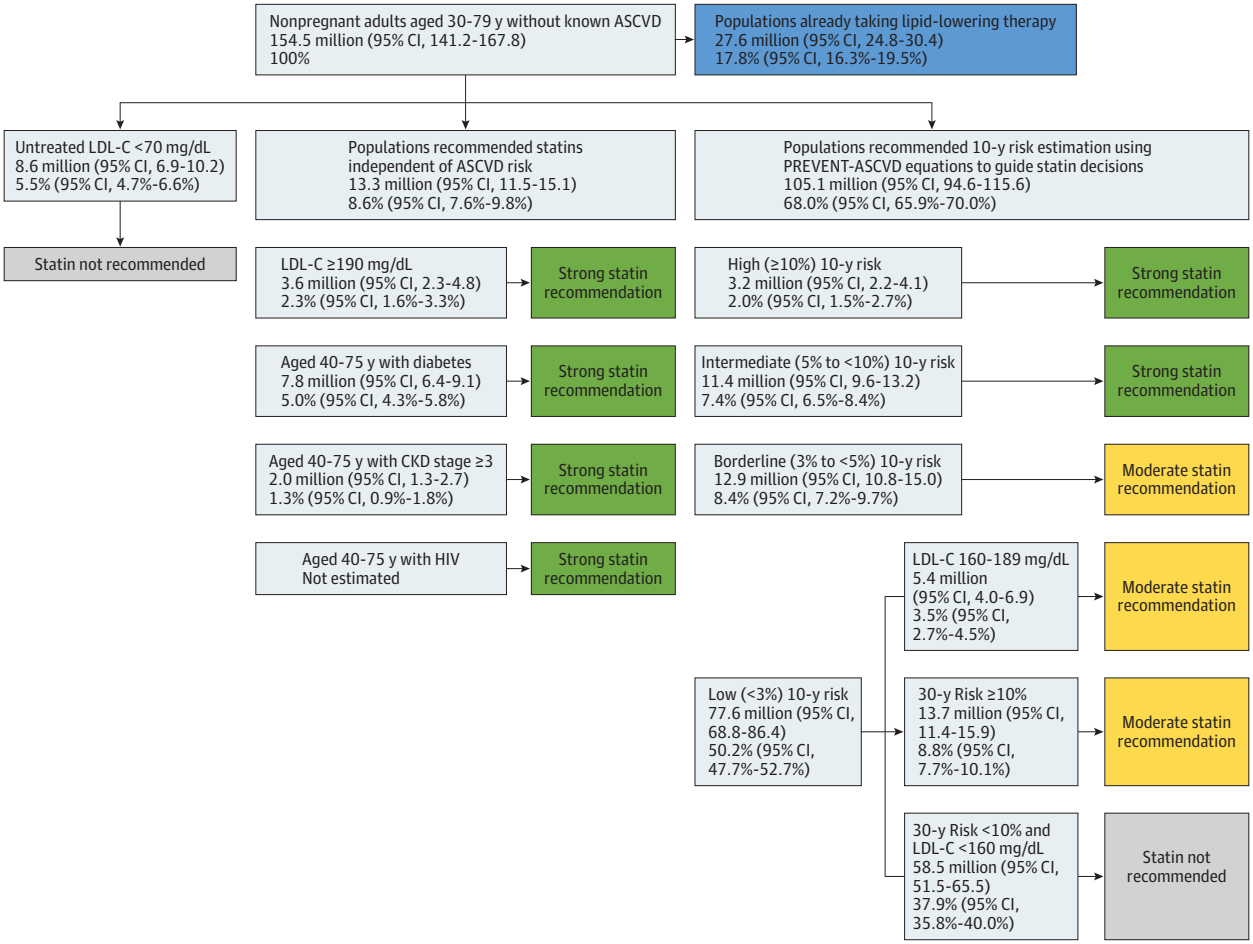
Abbreviations: ASCVD, atherosclerotic cardiovascular disease; LDL-C, low-density lipoprotein cholesterol; PCEs, pooled cohort equations; PREVENT, Predicting Risk of Cardiovascular Disease EVENTs.

[a] Consistent with the American Heart Association Class of Recommendation system, strong recommendation refers to class I (treatment is recommended and is indicated/useful/effective/beneficial), moderate recommendation refers to class IIA (treatment is reasonable and can be useful/effective/beneficial), and weak recommendation refers to class IIB (treatment may be reasonable and may be considered). Guideline class of recommendations are determined independently from level of evidence, which may range from data from randomized clinical trials to expert opinion. The PCEs yield higher predicted event rates than the PREVENT equations, which are based on aggregation of data from prospective cohorts and electronic health record data.

Fifth, to examine whether the 2026 guideline might shift statin eligibility for patients currently taking lipid-lowering therapy, we estimated off-treatment risk classification categories for this population. Consistent with prior studies, off-treatment cholesterol levels were calculated by estimating the reduction in cholesterol due to statin use from the participants' measured total cholesterol based on average statin effects from meta-analyses and adding this to the measured cholesterol values.[8,9,13] Off-treatment cholesterol levels were then used to calculate PREVENT-ASCVD risk scores and individuals were placed into 2026 guideline risk classification categories.

Analyses were conducted in Stata version 18.5 (StataCorp). Data were analyzed from March to May 2026.

Figure 1. Flowchart of Population Estimates by Risk Classification and Statin Recommendations Based on the 2026 Dyslipidemia Guideline



Fasting survey weights accounting for the complex, cluster-stratified design of NHANES were pooled across the 2017 to 2020 and 2021 to 2023 NHANES cycles to generate nationally representative estimates with 95% CIs of nonpregnant US adults aged 30 to 79 years without known ASCVD from the 4366 NHANES participants in the cohort. In cases of overlap between elevated LDL-C, diabetes, and CKD, individuals were assigned in hierarchal order. Identification of HIV status was not available in NHANES. Among individuals with low 10-year risk, in cases of overlap between LDL-C 160 to 189 mg/dL and 30-year risk 10% or higher, individuals were assigned to the LDL-C 160 to 189 mg/dL group. Yellow and green boxes represent populations recommended primary prevention statins, with yellow representing moderate (class IIA) recommendations and green representing strong (class I) recommendations.

ASCVD indicates atherosclerotic cardiovascular disease; CKD, chronic kidney disease; LDL-C, low-density lipoprotein cholesterol; NHANES, National Health and Nutrition Examination Survey; PREVENT, Predicting Risk of Cardiovascular Disease EVENTs.

Results

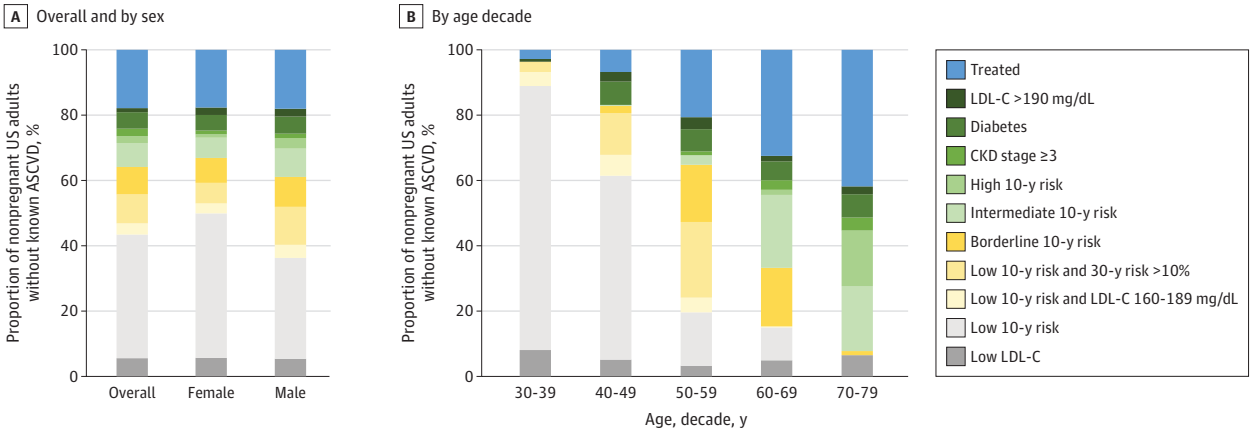
The weighted study sample included 4366 NHANES participants representative of 154.5 million (95% CI, 141.2-167.8) US adults without known ASCVD (weighted mean age, 51 years; 52.0% female; 6.3% Asian, 10.5% Black, 16.4% Hispanic, 62.2% White).

Primary Prevention Statin Eligibility Based on the 2026 Dyslipidemia Guideline

Of the estimated 154.5 million US adults without known ASCVD, 17.8% (95% CI, 16.3%-19.5%) reported currently taking statins; 8.6% (95% CI, 7.6%-9.8%) met criteria for statin eligibility independent of ASCVD risk estimation based on an LDL-C of 190 mg/dL or greater, diabetes, or chronic kidney disease; 5.5% (95% CI, 4.7%-6.6%) had LDL-C below 70 mg/dL; 2.3% (95% CI, 1.6%-3.3%) met criteria for statin eligibility due to LDL-C of 190 mg/dL or greater; 5.0% (95% CI, 4.3%-5.8%) due to diabetes; and 1.3% (95% CI, 0.9%-1.8%) due to CKD. Thus, 68.0% (95% CI, 65.9%-70.0%) met guideline criteria for ASCVD risk estimation to guide statin decisions (**Figure 1**).

Among the 105.1 million (95% CI, 94.6-115.6) US adults who met guideline criteria for ASCVD risk estimation to guide statin decisions, 3.2 million (95% CI, 2.2-4.1) were classified as high risk, 11.4 million (95% CI, 9.6-13.2) as intermediate risk, 12.9 million (95% CI, 10.8-15.0) as borderline risk, and 77.6 million (95% CI, 68.8-86.4) as low risk. Of low-risk US adults, 5.4 million (95% CI, 4.0-6.9) met statin eligibility due to LDL-C of 170 to 189 mg/dL, 13.7 million (95% CI, 11.4-15.9) met statin

Figure 2. Stacked Bar Chart of Population Estimates of 2026 Dyslipidemia Guideline Risk Classification Categories by Age and Sex



Fasting survey weights accounting for the complex, cluster-stratified design of NHANES were pooled across the 2017 to 2020 and 2021 to 2023 NHANES cycles to generate nationally representative estimates of nonpregnant US adults aged 30 to 79 years without known ASCVD from the 4366 NHANES participants in the cohort. In cases of overlap between elevated LDL-C, diabetes, and CKD, individuals were assigned in hierarchal order. Among individuals with low 10-year risk, in cases of overlap between LDL-C 160 to 189 mg/dL and 30-year risk 10% or greater, individuals were assigned to the LDL-C 160 to 189 mg/dL group. Yellow and green shading represent populations recommended primary prevention statins, with yellow representing moderate (class IIA) recommendations and green representing strong (class I) recommendations. Blue shading indicates individuals already receiving lipid-lowering therapy and gray indicates populations not recommended primary prevention statins.

ASCVD indicates atherosclerotic cardiovascular disease; CKD, chronic kidney disease; LDL-C, low-density lipoprotein cholesterol; NHANES, National Health and Nutrition Examination Survey.

eligibility due to 30-year risk of 10% or greater, and the remaining 58.5 million (95% CI, 51.5-65.5) did not meet statin eligibility criteria (Figure 1).

In total, 56.6% (95% CI, 54.2%-58.9%) of the cohort, or an estimated 87.5 million (95% CI, 80.4-94.5) adults aged 30 to 79 years, were eligible for statins for primary prevention, including current users, based on the 2026 guideline (**Figure 2**). Statin eligibility varied substantially by age, with the majority of individuals aged 50 to 59 years (80.4%), 60 to 69 years (85.0%), and 70 to 79 years (93.5%) statin eligible. In contrast, 11.1% of adults aged 30 to 39 years and 39.9% of adults aged 40 to 49 years were statin eligible. Among statin-eligible individuals, the majority of adults aged 60 to 79 years had a strong recommendation for statin therapy, whereas the majority of adults aged 30 to 59 years had a moderate recommendation. Statin eligibility was higher among males compared with females and among Black and White individuals compared with Asian and Hispanic individuals (eTable 1 in Supplement 1).

Individuals Newly Eligible for Primary Prevention Statin Therapy by the 2026 Dyslipidemia Guideline

Of the overall cohort, an estimated 21.5 million (95% CI, 18.5-24.4; 13.9%) were newly statin eligible by the 2026 guideline, 66.8 million (95% CI, 59.0-74.6; 43.2%) were not statin eligible by either the 2018 or 2026 guideline, 38.4 million (95% CI, 34.9-42.0; 24.9%) were statin eligible by the 2018 and 2026 guidelines, 0.3 million (95% CI, 0.04-0.5; 0.2%) were eligible by the 2018 guideline only, and 27.6 million (95% CI, 24.8-30.4; 17.8%) reported currently taking lipid-lowering therapy (**Table 2**).

The proportions of individuals newly eligible for statins based on the 2026 guideline were highest among adults aged 50 to 59 years (26.5% [95% CI, 22.7%-30.7%]) and adults aged 40 to 49 years (17.0% [95% CI, 13.7%-20.9%]). Proportions of individuals newly eligible for statins were modestly higher among Asian and White individuals compared with Black and Hispanic individuals (Table 2). Among individuals newly eligible for statins, one-third reported being told they had high cholesterol and more than 80% had elevated LDL-C equal to or above 100 mg/dL (eTable 2 in Supplement 1). More than one-third also had elevated BP, prediabetes, and obesity.

Estimated Impact of Guideline-Concordant Primary Prevention Statin Uptake on ASCVD Events and Adverse Events

The mean estimated 10-year ASCVD risk of individuals newly eligible for statin therapy was 3.1% (95% CI, 2.7%-3.5%) compared with 6.1% (95% CI, 5.8%-6.4%) for individuals eligible for statin therapy by both guidelines (**Table 3**). The majority of newly eligible individuals had low estimated 10-year risk. Among the estimated 5.4 million statin-eligible individuals with low 10-year risk and LDL-C of 160 to 189 mg/dL, mean 10-year risk was 1.4% (95% CI, 1.3%-1.6%) and 94.1% were newly eligible for statin therapy. Among the estimated 13.7 million statin-eligible individuals with low 10-year risk and 30-year risk of 10% or higher, mean 10-year risk was 2.1% (95% CI, 2.1%-2.2%) and 83.5% were newly eligible for statin therapy.

Estimated Statin Eligibility Among Individuals Currently Taking Lipid-Lowering Medications

Estimates of off-treatment ASCVD risk demonstrated that 93.2% (95% CI, 90.0%-95.5%) of the estimated 27.6 million individuals currently taking lipid-lowering therapies had an indication for statin therapy by the 2026 guideline (eFigure 2 in Supplement 1).

Table 2. Population Estimates for Primary Prevention Statin Eligibility in the 2018 and 2026 Guidelines[a]

	Nonpregnant adults aged 30-79 y without known ASCVD, % (95% CI)				
	Newly statin eligible by 2026 guideline	Statin eligible by 2018 and 2026 guidelines	Statin eligible by 2018 but not 2026 guideline[b]	Not statin eligible by 2018 or 2026 guideline	Currently taking lipid-lowering therapy
Unweighted No. of participants	534	1281	12	1643	896
Estimated weighted No. of US adults, millions (95% CI)	21.5 (18.5-24.4)	38.4 (34.9-42.0)	0.3 (0.04-0.5)	66.8 (59.0-74.6)	27.6 (24.8-30.4)
Estimated weighted % (95% CI)	13.9 (12.5-15.5)	24.9 (23.5-26.3)	0.2 (0.01-0.4)	43.2 (41.0-45.5)	17.8 (16.3-19.5)
Demographics					
Age category, y					
30-39	7.4 (5.1-10.6)	0.9 (0.4-2.1)		88.9 (84.9-92.0)	2.8 (1.4-5.6)
40-49	17.0 (13.7-20.9)	14.9 (12.0-18.2)		61.1 (57.4-64.6)	6.8 (5.0-9.1)
50-59	26.5 (22.7-30.7)	33.2 (29.3-37.5)		19.6 (16.2-23.5)	20.6 (17.7-23.9)
60-69	5.3 (3.2-8.4)	47.3 (42.1-52.5)		14.5 (11.8-17.7)	32.5 (28.0-37.3)
70-79	12.2 (9.2-16.1)	39.4 (34.5-44.5)		6.5 (4.2-9.9)	41.8 (38.2-45.5)
Sex					
Female	13.2 (11.4-15.4)	19.1 (16.7-21.8)		49.7 (46.4-54.0)	17.7 (15.5-20.0)
Male	14.6 (12.5-17.0)	31.1 (28.3-34.0)		36.2 (33.2-39.3)	18.0 (16.3-21.1)
Race and ethnicity					
Asian	14.0 (9.7-20.0)	19.7 (15.4-24.9)		49.7 (43.1-56.3)	16.5 (13.6-19.9)
Black	8.3 (6.1-11.1)	33.3 (30.0-36.9)		40.5 (30.0-43.8)	17.2 (14.1-20.8)
Hispanic	12.3 (9.3-16.1)	22.6 (20.1-25.4)		50.7 (46.1-55.3)	14.4 (11.1-18.5)
White	15.2 (13.2-17.6)	24.8 (22.7-27.1)		40.8 (37.7-44.1)	18.9 (16.8-21.3)
Other[c]	13.7 (8.6-21.1)	21.2 (14.5-29.7)		46.5 (36.2-57.0)	18.5 (13.4-24.9)
Health insurance					
Medicaid	10.0 (6.8-14.4)	19.8 (14.6-26.4)		51.9 (43.3-60.3)	17.2 (11.8-24.5)
Medicare	9.4 (6.2-13.9)	40.8 (37.4-44.2)		12.9 (9.6-17.1)	36.8 (33.0-40.9)
Private	14.8 (12.9-17.0)	22.0 (20.0-24.1)		45.9 (43.0-48.9)	17.1 (15.2-19.2)
Other[d]	14.6 (9.9-21.0)	22.2 (17.2-28.1)		48.9 (42.7-55.1)	14.4 (9.7-20.7)
Uninsured	15.5 (11.3-20.9)	29.3 (24.2-34.9)		51.5 (45.6-57.3)	3.7 (2.4-5.7)
Unknown	16.9 (4.6-45.9)	7.3 (1.8-25.1)		69.7 (42.9-87.6)	6.1 (0.9-30.5)
Place to go for health care					
Has routine place to go	13.9 (12.4-15.7)	24.7 (23.2-26.3)		40.8 (38.5-43.2)	20.4 (18.6-22.3)
No routine place to go	13.6 (9.9-18.5)	25.9 (21.9-30.4)		56.7 (51.6-61.7)	3.7 (2.4-5.8)

Abbreviations: ASCVD, atherosclerotic cardiovascular disease; NHANES, National Health and Nutrition Examination Survey.

[a] Fasting survey weights accounting for the complex, cluster-stratified design of NHANES were pooled across the 2017 to 2020 and 2021 to 2023 NHANES cycles to generate nationally representative estimates with 95% CIs of US adults aged 30 to 79 years without known ASCVD from the 4366 NHANES participants in the cohort.

[b] Given the low unweighted sample size (n = 12), characteristics are not shown.

[c] Per NHANES, included non-Hispanic persons who reported races other than Asian, Black, or White, including multiracial individuals.

[d] Included military health plans (Veterans Affairs, TRICARE), Indian Health Service, or state-sponsored plans.

Discussion

In this nationally representative cross-sectional study, the study investigators demonstrated that the 2026 AHA/ACC/multisociety dyslipidemia guideline expands the US population eligible for statin therapy for primary prevention of ASCVD by an estimated 21 million individuals, resulting in more than half of adults aged 30 to 79 years now being recommended for primary prevention statin prescription. The new populations eligible for statin therapy are predominantly younger and lower risk than populations recommended statin therapy by the preceding 2018 guideline, including nearly 20 million individuals with lower than 3% estimated 10-year ASCVD risk. More than 93% of adults aged 70 to 79 years are now recommended for primary prevention statin therapy. The analysis also confirms that the vast majority of patients currently receiving pharmacotherapy retain a strong or moderate indication for statin therapy by the 2026 guideline.

One major change in the 2026 guideline is the adoption of the PREVENT-ASCVD equations to estimate both 10- and 30-year risk in individuals aged 30 to 59 years. The PREVENT equations have been widely validated,[5] and prior studies have demonstrated the PREVENT equations result in nearly 50% lower 10-year risk estimates than the PCEs.[8,9] It may be surprising that using risk estimation tools, which lower 10-year risk estimates, would result in more individuals recommended statin therapy. This is a result of the 2026 guideline lowering thresholds for risk categories and recommending statins for new reasons other than 10-year risk. No new

Table 3. Estimated 10-Year Atherosclerotic Cardiovascular Disease (ASCVD) Risk Among US Adults Aged 30 to 79 Years Not Currently Taking Statins, by Risk Category[a]

Nonpregnant adults aged 30 to 79 y without known ASCVD	Weighted No. not receiving statins, millions (95% CI)	Mean 10-y PREVENT-ASCVD risk, % (95% CI)	Proportion of category newly statin eligible by 2026 guideline
By statin eligibility category			
Newly statin eligible by 2026 guideline	21.5 (18.5-24.4)	3.1 (2.7-3.5)	100
Statin eligible by 2018 and 2026 guidelines	38.4 (34.9-42.0)	6.1 (5.8-6.4)	0
Statin eligible by 2018 but not 2026 guideline	0.3 (0.04-0.5)	2.2 (1.6-2.7)	0
Not statin eligible by 2018 or 2026 guideline	66.8 (59.0-74.6)	1.2 (1.1-1.3)	0
By statin indication category			
LDL-C >190 mg/dL	3.6 (2.3-4.8)	4.7 (3.7-5.8)	0
Aged 40-75 y with diabetes	7.8 (6.4-9.1)	8.0 (7.3-8.7)	0
Aged 40-75 y with CKD stage ≥3	2.0 (1.3-2.7)	8.1 (7.08-9.1)	14.7 (6.7-29.6)
High (≥10%) 10-y risk	3.2 (2.2-4.1)	13.2 (12.6-13.8)	49.5 (41.2-57.8)
Intermediate (5% to <10%) 10-y risk	11.4 (9.6-13.2)	6.8 (6.6-7.0)	4.2 (2.0-8.5)
Borderline (3% to <5%) 10-y risk	12.9 (10.8-15.0)	3.8 (3.7-3.9)	20.2 (15.4-26.1)
Low (<3%) 10-y risk with LDL-C 160-189 mg/dL	5.4 (4.0-6.9)	1.4 (1.3-1.6)	94.1 (85.5-97.8)
Low (<3%) 10-y risk with 30-y risk ≥10%	13.7 (11.4-15.9)	2.1 (2.1-2.2)	83.5 (77.8-88.1)
Statin not indicated			
LDL-C <70 mg/dL	8.6 (6.9-10.2)	3.7 (2.9-4.5)	0
Low (<3%) 10-y risk with LDL-C <160 mg/dL and 30-y risk <10%	58.5 (51.5-65.5)	0.8 (0.8-0.8)	0

Abbreviations: CKD, chronic kidney disease; LDL-C, low-density lipoprotein cholesterol; NHANES, National Health and Nutrition Examination Survey; PREVENT, Predicting Risk of Cardiovascular Disease EVENTs.

[a] Fasting survey weights accounting for the complex, cluster-stratified design of NHANES were pooled across the 2017 to 2020 and 2021 to 2023 NHANES cycles to generate nationally representative estimates with 95% CIs of nonpregnant US adults aged 30 to 79 years without known ASCVD from the 4366 NHANES participants in the cohort. In cases of overlap between elevated LDL-C, diabetes, and CKD, individuals were assigned in hierarchal order. Among individuals with low 10-year risk, in cases of overlap between LDL-C 160 to 189 mg/dL and 30-year risk of 10% or greater, individuals were assigned to the LDL-C 160 to 189 mg/dL group.

primary prevention statin trials of low-risk groups were published between the 2018 and 2026 guidelines. Rather, the 2026 guideline chose cut points based on a goal to match different scores from risk estimates between the PCEs and PREVENT equations to result in similar populations in each risk category.[4] Furthermore, the 2026 guideline cut point of 3% to define low risk was chosen as the point at which a moderate-intensity statin was estimated as equally likely to prevent an ASCVD event as to cause a case of diabetes (other adverse events not considered).[4] However, the guideline also acknowledges that for high-intensity statins, this cut point is 7% 10-year risk,[4] indicating that for statin-eligible individuals with 10-year ASCVD risk below 7%, use of high-intensity rather than moderate-intensity statins may result in more incident diabetes cases than ASCVD events averted.

The 2026 guideline emphasizes that clinicians should "treat dyslipidemia earlier,"[4] and consistent with this recommendation, the study found that nearly 9 million individuals aged 30 to 49 years are newly statin eligible, largely due to having elevated 30-year risk but low 10-year risk. This recommendation assumes that early statin use reduces ASCVD events in the distant future, a promising idea based on observational studies of cumulative LDL-C exposure,[14] although one with limited clinical trial data. The impact of this change, which will prevent relatively few events in the short term, is unknown, in part because the impact of treating low-risk patients for long time periods is difficult to study.

It is important to note that the 2026 guideline strongly recommends that all patients should be counseled on diet and lifestyle changes as well as a benefit-risk discussion for consideration of lipid-lowering therapies,[4] indicating that for some patients, a decision to focus on nonpharmacologic therapies is reasonable. The 2026 guideline also provides moderate recommendations to use any of 10 "risk enhancers," including biomarkers, such as polygenic risk scores or high-sensitivity C-reactive protein, and histories, such as premature menopause, as part of the proposed risk-benefit-risk discussion in the borderline- and intermediate-risk groups. The guideline states the presence of these risk enhancers, which are highly prevalent,[15] may be used to help confirm a higher risk state and thus statin initiation, but that their absence should not be interpreted as a reason to delay or avoid pharmacotherapy. Additionally, the guideline recommends the use of coronary artery calcium testing in these same groups when statin decisions are uncertain, and, unlike risk enhancers, a coronary artery calcium score of 0 is considered an indication to delay or avoid statin therapy. Prior studies of 2018 guideline thresholds have indicated that 3.0% risk thresholds remain cost-effective,[16] yet both the expansion of statin eligibility to populations with less than 3.0% 10-year risk and the increased guideline emphasis on additional diagnostic testing to guide statin decisions indicate the need for both updated cost-effectiveness analyses and greater understanding of patient preferences, particularly among younger and lower-risk populations.

Limitations

This study has limitations. First, the results are based on data from 4366 NHANES participants extrapolated to 154.5 million US adults based on NHANES data from 2017 to 2023. Second, current use of blood pressure- and lipid-lowering therapies and history of ASCVD were based on self-report. Third, NHANES does not report HIV status or peripheral artery disease, which the 2026 guideline includes as strong recommendations for statin use. Fourth, the study investigators focused on statin eligibility and did not examine recommendations on intensity of statin therapy, achievement of guideline-concordant lipid-lowering goals, or predicted changes in statin-related ASCVD risk reduction or statin-induced adverse effects if guideline-eligible populations were treated.

Conclusions

The 2026 AHA/ACC dyslipidemia guideline expands the US population eligible for statin therapy for primary prevention of ASCVD by an estimated 21 million individuals, resulting in more than half of nonpregnant adults aged 30 to 79 years now being primary prevention statin eligible, with the majority of newly eligible individuals having less than 3% estimated 10-year risk of ASCVD.

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