Online Supplement
(Shen et al)

Table S1. Demographics characteristics and medical comorbidities of overall study population. Weighted percentages represent the proportions of individuals within each demographic or comorbidity subgroup in our study population. Abbreviations: PCSK9i, proprotein convertase subtilisin kexin type 9 inhibitor; IPE, icosapent ethyl; ASCVD, atherosclerotic cardiovascular disease; CKD, chronic kidney disease. *M represents population in millions.

	N	Weighted % [95% CI]	Weighted Population
Overall	2729	100.0	149.3M*
Age (years)			
≥65	990	32.9 [29.6 – 36.2]	49.1M
40-64	1739	67.1 [63.8 – 70.4]	100.2M
Sex			
Female	1384	52.5 [49.8 – 55.1]	78.3M
Male	1345	47.5 [44.9 – 50.2]	71.0M
Race			
Non-Hispanic White	968	66.2 [62.1 – 70.4]	98.9M
Non-Hispanic Black	698	10.7 [7.9 – 13.6]	16.0M
Non-Hispanic Asian	339	5.7 [3.8 – 7.6]	8.4M
Mexican American	308	6.7 [5.0 – 8.5]	10.1M
Other Hispanic	297	6.8 [5.4 – 8.2]	10.2M
Other Race	119	3.9 [2.6 – 5.2]	5.8M
Health Insurance			
Yes	2404	90.2 [87.5 – 92.8]	134.6M
No	325	9.8 [7.1 – 12.5]	14.7M
Comorbidities			
ASCVD	435	14.0 [11.3 – 16.6]	20.8M
Hypertension	1349	43.3 [39.6 – 47.1]	64.7M
Dyslipidemia	1304	48.1 [45.6 – 50.7]	71.8M
Diabetes	601	16.7 [14.5 – 18.8]	24.9M
CKD	396	13.6 [11.7 – 15.5]	20.2M
Heart Failure	140	3.5 [2.4 – 4.6]	5.2M
Smoking	490	15.3 [12.8 – 17.9]	22.9M

Table S2. Overall use of baseline lipid-lowering therapies and novel agents. Weighted percentages represent the proportions of individuals with use of the corresponding drug classes and combinations of drug classes irrespective of guideline indications. Abbreviations: PCSK9i, proprotein convertase subtilisin kexin type 9 inhibitor; IPE, icosapent ethyl. *M represents population in millions.

	N	Weighted % [95% CI]	Weighted Population
Baseline lipid-lowering therapy			
Any statin	874	30.7 [26.9 – 34.5]	45.8M*
Low-moderate intensity statin	340	12.5 [10.3 – 14.5]	18.6M
Moderate-high intensity statin	534	18.2 [15.5 – 20.9]	27.2M
Ezetimibe	28	1.7 [0.61 – 2.8]	2.5M
Low-moderate intensity statin + ezetimibe	10	0.62 [0.00 – 1.4]	931,954
Moderate-high intensity statin + ezetimibe	7	0.26 [0.00 – 0.53]	381,074
Novel agents			
PCSK9i	5	0.17 [0.01 – 0.33]	253,528
IPE	2	0.16 [0.00 – 0.43]	233,064

Table S3. Current eligibility for PCSK9i and IPE in study population across demographic and comorbidity profiles. Weighted percentages represent the proportion of individuals within each demographic or comorbidity subgroup who are eligible for the corresponding drug classes. Abbreviations: PCSK9i, proprotein convertase subtilisin kexin type 9 inhibitor; IPE, icosapent ethyl; ASCVD, atherosclerotic cardiovascular disease; CKD, chronic kidney disease. *M represents population in millions.

	Overall N	PCSK9i			IPE		
		Eligible N	Weighted % [95% CI]	Weighted Population	Eligible N	Weighted % [95% CI]	Weighted Population
Overall	2729	1	0.018 [0.00 – 0.054]	27,117	91	3.1 [2.0 – 4.2]	4.6M*
Age (years)							
≥65	990	1	0.055 [0.00 – 0.16]	27,117	46	5.1 [3.1 – 7.0]	2.5M
40-64	1739	0	0.00	0	45	2.2 [1.2 – 3.1]	2.2M
Sex							
Female	1384	1	0.035 [0.00 – 0.10]	27,117	36	2.0 [1.1 – 2.9]	1.6M
Male	1345	0	0.00	0	55	4.3 [2.1 – 6.6]	3.1M
Race							
Non-Hispanic White	968	1	0.027 [0.00 – 0.081]	27,117	49	3.5 [1.9 – 5.0]	3.4M
Non-Hispanic Black	698	0	0.00	0	12	2.0 [1.1 – 2.9]	321,879
Non-Hispanic Asian	339	0	0.00	0	4	1.2 [0.0 – 2.4]	97,996
Mexican American	308	0	0.00	0	10	2.7 [0.9 – 4.6]	274,543
Other Hispanic	297	0	0.00	0	9	2.1 [0.0 – 4.6]	217,504
Other Race	119	0	0.00	0	7	5.4 [1.7 – 9.1]	310,197
Health Insurance							
Yes	2404	1	0.020 [0.00 – 0.060]	27,117	86	3.4 [2.2 – 4.6]	4.5M
No	325	0	0.00	0	5	0.71 [0.00 – 1.5]	103,339
Comorbidities							
ASCVD	435	1	0.13 [0.00 – 0.38]	27,117	52	13.9 [6.9 – 20.9]	2.9M
Hypertension	1349	0	0.00	0	77	5.6 [3.5 – 7.7]	3.6M
Dyslipidemia	1304	1	0.038 [0.00 – 0.11]	27,117	79	5.6 [3.6 – 7.5]	4.0M
Diabetes	601	1	0.11 [0.00 – 0.32]	27,117	70	14.8 [9.4 – 20.1]	3.7M
CKD	396	0	0.00	0	32	7.0 [3.5 – 10.6]	1.4M
Heart Failure	140	0	0.00	27,117	20	17.8 [5.3 – 30.3]	920,056
Smoking	490	1	0.12 [0.00 – 0.35]	27,117	15	3.0 [1.4 – 4.5]	677,483

Table S4. Simulated eligibilities for PCSK9i and IPE. Weighted percentages represent the proportions of individuals who are eligible for PCSK9i and IPE in the respective populations. Abbreviations: PCSK9i, proprotein convertase subtilisin kexin type 9 inhibitor; IPE, icosapent ethyl. *M represents population in millions.

	Model 1: statin use contraindicated in those not on statins		**Model 2: initiation and maximal escalation of lipid-lowering therapies**	
	Weighted % [95% CI]	**Weighted Population**	**Weighted % [95% CI]**	**Weighted Population**
PCSK9i	6.5 [4.9 – 8.1]	9.7M*	4.1 [2.8 – 5.4]	6.1M
IPE	7.8 [6.2 – 9.3]	11.6M	6.8 [5.4 – 8.3]	10.2M

Figure S1. Simulated eligibilities for PCSK9i and IPE in overall study population and across demographic subgroups. Simulated eligibilities for **(A)** PCSK9i and **(B)** IPE. Model 1: assumes existing lipid-lowering therapy as the maximum tolerated. Model 2: assumes initiation and maximal escalation of pre-existing lipid-lowering therapies and accounting for expected lipid profile changes. Bars represent weighted proportions (%) with 95% confidence interval of eligible individuals for each drug class. Abbreviations: PCSK9i, proprotein convertase subtilisin kexin type 9 inhibitor; IPE, icosapent ethyl.

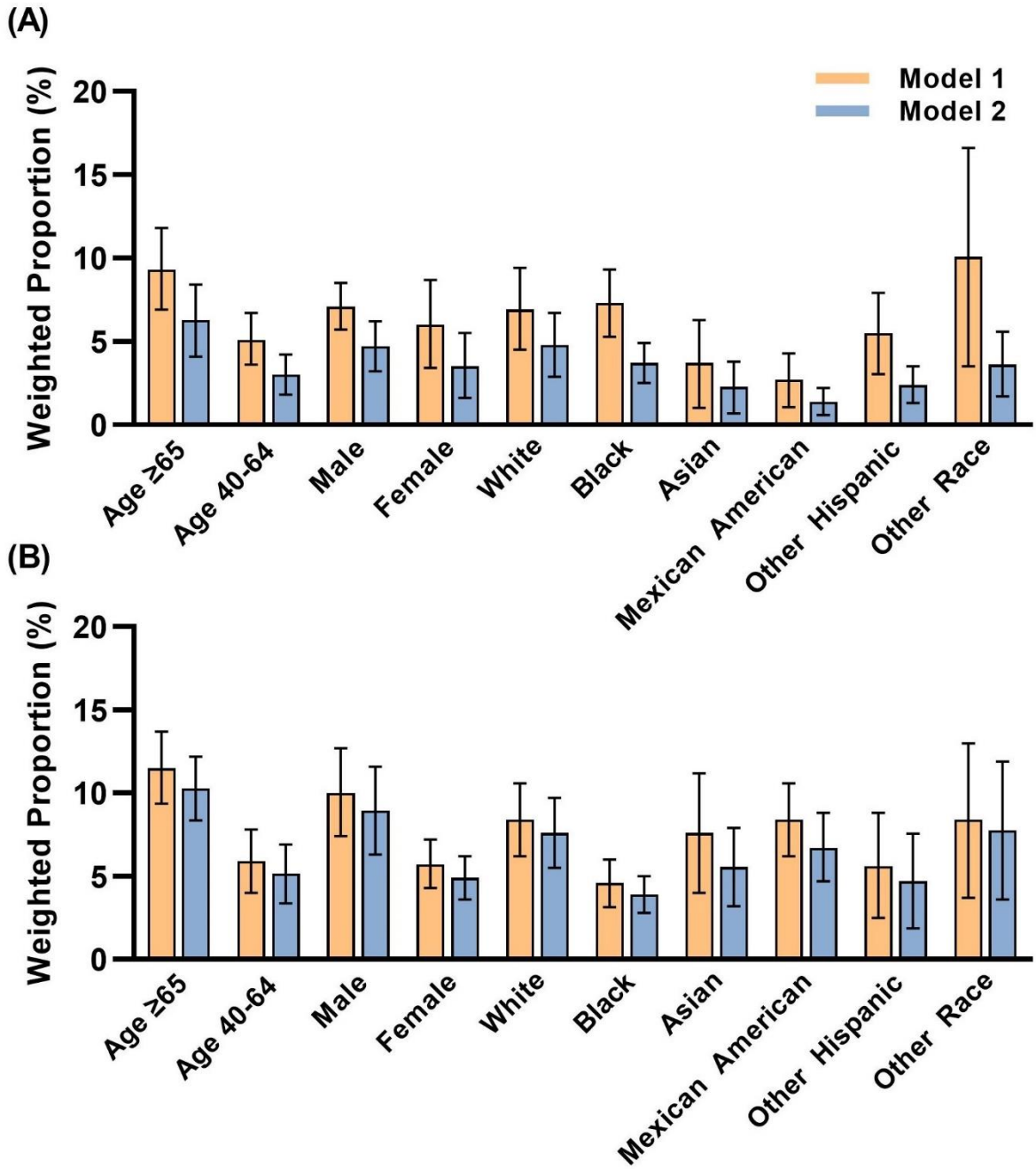

Figure S2. Distributions of original and simulated mean LDL-C and triglyceride levels after maximal escalation of lipid-lowering therapy by key subpopulations. Original and mean post-escalation LDL-C assuming initiation and maximal escalation of statin and ezetimibe in **(A)** ASCVD population. Original and mean post-escalation triglycerides assuming initiation and maximal escalation of statins in **(B)** ASCVD and **(C)** diabetic populations. Post-escalation LDL-C and triglycerides are presented as mean values due to bootstrapping method. Abbreviations: LDL-C, low density lipoprotein cholesterol; ASCVD, atherosclerotic cardiovascular disease.