## **Supplemental Online Content**

Lamprea-Montealegre JA, Madden E, Tummalapalli SL, et al. Association of race and ethnicity with prescription of SGLT2 inhibitors and GLP1 receptor agonists among patients with type 2 diabetes in the Veterans Health Administration system. *JAMA*. doi:10.1001/jama.2022.13885

eTable 1. Demographic and Clinical Characteristics of Patients With Type 2 Diabetes in the Veterans Health Administration System From 2019 to 2020 by Ethnicity Categories eTable 2. VHA Facility Complexity Level eTable 3. Covariate Definition and Method of Ascertainment eTable 4. System characteristics and SGLT2i and GLP1-RA prescription eTable 5. Type of VHA Facility and Driving Distance to Tertiary VHA Facility by Race Group eTable 6. Association of Race and Ethnicity Categories With SGLT2i and GLP1-RA Prescription With Further Adjustment for VHA Facility Type and Driving Time to Tertiary Care VHA Center eTable 7. Association of Race and Ethnicity With SGLT2i and GLP1-RA Prescription Restricting Study Sample to Patients With at Least Two Prescription Fills During in One Year eTable 8. Incident Prescription Rates for SGLT2i From 2017 to 2021 eTable 9. Incident Prescription Rates for GLP1-RA From 2017 to 2021 eFigure 1. Algorithm for Ascertainment of Type 2 Diabetes Cases in Electronic Health Records eFigure 2. Identification of the Study Sample eFigure 3. Association Between Race and Ethnicity Groups and SGLT2i Prescription With Sequential Adjustment for Patient and System-Level Characteristics eFigure 4. Association Between Race and Ethnicity Groups and GLP1-RA prescription With Sequential Adjustment for Patient and System-Level Characteristics eFigure 5. Variability in SGLT2i Prescription Across VHA Stations eFigure 6. Variability in GLP1-RA Prescription Across VHA Stations eFigure 7. Prescription of SGLT2i and GLP1-RA Comparing American Indian or Alaska Native Patients versus White Patients Across Patient- and System-Level Characteristics eFigure 8. Prescription of SGLT2i and GLP1-RA Comparing Asian, Native Hawaiian or Other Pacific Islander Patients versus White Patients Across Patient- and System-Level Characteristics eFigure 9. Prescription of SGLT2i and GLP1-RA Comparing Multiracial Patients versus White Patients Across Patient- and System-Level Characteristics eFigure 10. Prescription of SGLT2i and GLP1-RA Comparing Patients With Unknown Race versus White Patients Across Patient- and System-Level Characteristics eFigure 11. Incident Prescription Rates for SGLT2i From 2017 to 2021 Across Race Groups eFigure 12. Incident Prescription Rates for SGLT2i From 2017 to 2021 Across Ethnicity Groups eFigure 13. Incident Prescription Rates for GLP1-RA From 2017 to 2021 Across Race Groups eFigure 14. Incident Prescription Rates for GLP1-RA From 2017 to 2021 Across Ethnicity Groups eAppendix. Sensitivity Analyses

eReferences

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

**eTable 1.** Demographic and clinical characteristics of patients with type 2 diabetes in the Veterans Health Administration system from 2019 to 2020 by ethnicity<sup>a</sup> categories

Characteristics	Hispanic or	Not Hispanic or Latino	Unknown Ethnicity
	Latino	(n=1.072,958)	(n=39,922)
	(n=85,034)		
Socio-demographic			
Mean age (SD)	65 (12.4)	68 (10.7)	68 (11.2)
Female	2,857 (3%)	43,956 (4%)	1,602 (4%)
Male	82,177 (97%)	1,029,002 (96%)	38,320 (96%)
Race			
American Indian or Alaska	1,349 (2%)	8,568 (1%)	210 (1%)
Native	2,040 (2%)	22,069 (2%)	554 (1%)
Asian, Native Hawaiian or	0 504 (40()	000 007 (040()	0.001.(00()
Other Pacific Islander	3,584 (4%)	228,027 (21%)	3,321 (8%)
Black or African American	64,278 (76%)	774,338 (72%)	12,032 (30%)
vvnite	939 (1%)	8,678 (1%)	
	12,844 (15%)	31,278 (3%)	23,627 (59%)
Unknown Race			
	42 081 (51%)	480 430 (45%)	17 122 (110/)
-30 /8-	42,901 (3170)	460,430 (43%)	17,432 (4470)
Diabetes service	20,263 (24%)	271,427 (25%)	9,376 (23%)
Lowest ZIP Code median	20.240 (200()	055 070 (040()	0,705 (000())
	32,310 (38%)	255,373 (24%)	8,785 (22%)
Highest social deprivation			
index quartile (score>73)	28 968 (34%)	249 298 (23%)	94 81 (24%)
Rural or highly rural ZIP	14,538 (17%)	417,902 (39%)	15,103 (38%)
Code	,	,	
Lifestyle			
Unhealthy alcohol use <sup>c</sup>	7,027 (8%)	86,126 (8%)	3,151 (8%)
Current smoking	10,534 (12%)	187,453 (17%)	6,499 (16%)
Diabetes management and	control		
Hb A1C ≤7%	41,897 (49%)	557,682 (52%)	20,014 (50%)
Hb A1c >7-8%	18,003 (21%)	242,886 (23%)	8,627 (22%)
Hb A1c >8-9%	9,686 (11%)	111,119 (10%)	3,958 (10%)
HB A1c >9%	10,416 (12%)	100,082 (9%)	3,623 (9%)
Unknown	5,032 (6%)	61,189 (6%)	3,700 (9%)
Lifetime max. mean Hb A1c	9.1 (2.2)	8.7 (2.1)	8.7 (2.1)
(SD)	8.7 (7.3-10 <sup>.5</sup> )	8.20 (7.0-9.9)	8.1 (7.0-9.8)
Lifetime max. median			
HbA1c (IQR)			

Characteristics	Hispanic or Latino (n=85,034)	Not Hispanic or Latino (n=1,072,958)	Unknown Ethnicity (n=39,922)
Clinical Characteristics			
Hypertension	75,662 (89%)	96,9351 (90%)	34,157 (86%)
BMI ≥30 kg/m²	44,837 (53%)	606,477 (57%)	22,061 (55%)
CKD	19,599 (23%)	30,0511 (28%)	1,0921 (27%)
Unknown CKD	20,298 (24%)	268,579 (25%)	10,819 (27%)
ASCVD	16,185 (19%)	281,653 (26%)	9,629 (24%)
Heart Failure	4,296 (5%)	73,276 (7%)	2,419 (6%)
VHA station parent facility	complexity level <sup>d</sup>		
1a (highest)	54,631 (64%)	439,952 (41%)	20,403 (51%)
1b (high)	10,482 (12%)	180,027 (17%)	5,180 (13%)
1c (mid-high)	5,293 (6%)	176,986 (16%)	4,865 (12%)
2 (medium)	8,404 (10%)	14,3017 (13%)	5,152 (13%)
3 (low)	6,017 (7%)	128,164 (12%)	4,096 (10%)
Census region of VHA stati	on		
South	33,978 (40%)	509,367 (47%)	17,043 (43%)
West	25,731 (30%)	181,537 (17%)	10,894 (27%)
Midwest	4,916 (6%)	247,860 (23%)	8,266 (21%)
Northeast	5,370 (6%)	131,226 (12%)	3,571 (9%)

Cells are n (%) unless otherwise specified

Abbreviations: SD, standard deviation; SGLT2i, sodium-glucose co-transporter 2 inhibitor; GLP1-RA, glucagon-like peptide-1 receptor-agonist; BMI, body mass index; ASCVD, atherosclerotic cardiovascular disease; CKD, chronic kidney disease; Hb A1c, hemoglobin A1c

<sup>a</sup> VHA collects race and ethnicity information based on a two-question self-identified method. The first question asks patients to classify their ethnicity: Hispanic or Latino (yes/no). The second question asks patients to classify their race (> 1 classification may be selected): American Indian or Alaska Native; Asian; Black or African American; Native Hawaiian or other Pacific Islander; White; unknown race by patient or declined to answer.

<sup>b</sup>VHA assigns a given disability (e.g. diabetes), a rating to indicate the severity of their service-connected condition. Patients with a disability rating >50% and those in whom diabetes is a service-connected condition do not have co-payments for their medications.

<sup>c</sup> Alcohol Use Disorder Identification Test (AUDIT) score ≥ 3 for women and ≥4 for men

<sup>d</sup> VHA complexity rating is assigned to each VHA station based on the classification of the parent facility within the station encompassing facility volume, intensive care availability, number of sub-specialists per patient, and teaching/research capacity.

eTable 2.	VHA Fa	acility	Com	olexity	/ Level

Complexity Level	Facility description
1a-Highest complexity	Facilities with high-volume, high-risk patients, most complex clinical
	programs and large research and teaching-programs
1b-High complexity	Facilities with medium-high volume, high-risk patients, many complex
	clinical problems, and medium sized research and teaching
	programs.
1c-Mid-high complexity	Facilities with medium-high volume, medium-risk patients, some
	complex clinical programs, and medium sized research and teaching
	programs.
2-Medium complexity	Facilities with medium-volume, low-risk patients, few complex clinical
	programs, and small or no research teaching programs.
3-Low complexity	Facilities with low-volume, low-risk patients, few or no complex
	clinical programs, and small or no research teaching programs.

This rating is assigned to each station based on the classification of the parent facility within the station

eTable 3. Covariate definition and method of ascertainment

Covariate	Definition and ascertainment
Income	Median per capita income of residential ZIP Code <sup>1</sup>
Socio-economic status	ZIP Code social deprivation index score <sup>2</sup>
Rurality of residence	Categories (rural, highly rural, or urban) assigned based on Rural-Urban
	Community Area (RUCA) codes which consider population density as
	well as how closely a community is linked socioeconomically to a large
	urban center <sup>3</sup>
VHA disability ratings	VHA assigned disability (e.g., diabetes) rating to indicate the severity of
	their service-connected condition. These disability ratings determine
	now much disability compensation a veteran receives each month as
	well as their eligibility for VHA benefits. The disability fating is expressed
	as a percentage, representing now much the disability decreases the
VHA station geographic	United States Census Bureau classification of U.S. Divisions which are
location	nested in the four Census U.S. Regions: New England and Middle
	Atlantic Divisions in the Northeast region. Fast North Central and West
	North Central Divisions in the Midwest Region: South Atlantic. East
	South Central, and West South-Central Divisions in the South Region,
	and the Mountain and Pacific Division in the West Region
Smoking status	VHA Corporate Data Warehouse indicator: current smoker, former
_	smoker, never smoker
Alcohol use	Alcohol Use Disorder Identification Test (AUDIT) identification of alcohol
	use disorder with unhealthy alcohol use defined as an AUDIT-C score $\geq$
	3 for women and ≥4 for men <sup>5</sup>
Mental health diagnosis	A mental health diagnosis comprised the presence of an ICD-10 code
	encompassing post-traumatic health disorder or other severe mental
Chronic kidnov diacoco	Illness <sup>o</sup>
Chronic kluney disease	e-Frienolype algorithm for GND ascertainment in electronic field in a second which combines estimated domenular filtration (eGER) rate and
	urinary albumin to creatinine (ACR) ratio values for CKD ascertainment
	CKD is defined as at least two measures of eGFR <60 ml/min/1.73 m2
	and /or an ACR >30 mg/g obtained more than 90 days apart. Only
	outpatient values were used <sup>7</sup>
Kidney disease improving	For patients with CKD: eGFR stages G1 to G5 and ACR stages A1 to
global outcomes (KDIGO)	A3 <sup>8</sup> . CKD status and CKD stage was assessed at baseline. We
CKD staging	excluded patients with CKD if an outpatient eGFR was less than 15 at
	any point from January 1 <sup>st,</sup> , 2019, to December 31 <sup>st</sup> , 2020 (eFigure 2).
Atherosclerotic	(ICD-10) codes for ischemic heart disease or ischemic stroke being
cardiovascular disease	present on at least two inpatient and/or outpatient encounters <sup>9</sup>
Heart Failure	(ICD-10) codes for heart failure being present on at least two inpatient or
COV/ID diagnosis	Outpatient occasions <sup>10</sup>
COVID diagnosis	2019 to 2020
Hypertension	eMERGE algorithm for hypertension ascertainment in electronic health
	records which combine blood pressure measurements, ICD codes, and
	utilization of medications for hypertension <sup>11</sup>
Frailty	VHA frailty index encompasses variables related to mobility, functional
	status, cognition and mood, sensory impairment (e.g., hearing, or visual
	impairment), and other geriatric syndromes (e.g., incontinence) <sup>12</sup>

	SGLT2i	GLP1-RA
	Multivariable Model OR (95% Cl)	Multivariable model OR (95% Cl)
VHA facility complexity level	-	
1A-Highest complexity	Reference	Reference
1B-High complexity	0.64 (0.57, 0.71)	0.56 (0.49, 0.63)
1C-Mid-high complexity	0.51 (0.46, 0.57)	0.39 (0.35, 0.44)
2-Medium complexity	0.60 (0.54, 0.66)	0.68 (0.61, 0.71)
3-Low complexity	1.02 (0.92, 1.12)	1.38 (1.24, 1.54)
Division		
East North Central	Reference	Reference
East South Central	1.40 (0.90, 2.17)	1.78 (1.03, 3.08)
Middle Atlantic	0.92 (0.62, 1.37)	1.06 (0.65, 1.73)
Mountain	0.72 (0.48, 1.09)	0.99 (0.60, 1.64)
New England	1.45 (0.90, 2.33)	1.34 (0.74, 2.41)
Pacific	1.02 (0.70, 1.51)	1.12 (0.70, 1.81)
South Atlantic	1.28 (0.90, 1.80)	1.08 (0.70, 1.66)
West North Central	1.44 (0.90, 2.32)	1.15 (0.64, 2.07)
West South Central	0.95 (0.64, 1.40)	0.78 (0.48, 1.26)

### eTable 4. System characteristics and SGLT2i and GLP1-RA prescription

Multivariable models adjusted for demographic factors, Zip Code median income, Zip Code social deprivation index, VHA diabetes and service connection, rurality, smoking status, unhealthy alcohol use, hemoglobin A1C, other anti-diabetic agents, hypertension, body mass index, mental health diagnosis, ASCVD, heart failure, no CKD, CKD: estimated GFR and albuminuria categories, number of primary care, cardiology, endocrinology, and nephrology visits, VHA frailty index, COVID-19 diagnosis, VHA station parent facility-complexity level, United States Census Division.

eTable 5. Type of VHA facility and driving distance to tertiary VHA facility by race group

Characteristics	American Indian or Alaska Native	Asian, Native Hawaiian or Other Pacific	Black (N=234 932)	White (N=850 648)	Multiracial	Unknown race
	(N=10,127)	Islander (N=24,663)	(11-204,302)	(11-000,040)	(14-3,733)	(N=07,743)
Type of VHA facilit	У					
VHA medical	3,342 (33%)	7,555 (31%)	109,936 (47%)	283,381 (33%)	3,664 (37%)	20,026 (30%)
center						
Community based outpatient clinic	5,664 (56%)	12,461 (51%)	101,619 (43%)	479,110 (56%)	4,836 (49%)	39, 099 (58%)
Other						
	1,121 (11%)	4,647 (19%)	23,377 (10%)	88,157 (10%)	1,295 (13%)	8,624 (13%)
Driving time to tert	iary care VHA facility	,				
Mean time in minutes (SD)	131 (107)	80 (70)	72 (55)	103 (75)	99 (74)	103 (81)

Type of VHA facility is the site of the first primary care clinic visit between January 1<sup>st</sup> 2019 to December 31<sup>st</sup> 2020 (community-based outpatient center, VHA medical center, or other) and the driving time in minutes to the nearest VHA tertiary center from the patient's address.

**eTable 6.** Association of race and ethnicity categories with SGLT2i and GLP1-RA prescription with further adjustment for VHA facility type and driving time to tertiary care VHA center

	SGLT2i	GLP1-RA
	Multivariable Model OR (95% Cl)	Multivariable model OR (95% Cl)
Race		
White	Reference	Reference
American Indian or Alaska Native	0.85 (0.79, 0.91)	0.89 (0.82,0.97)
Asian, Native Hawaiian or Other Pacific Islander	0.95 (0.91, 1.0)	0.80 (0.75,0.85)
Black	0.72 (0.70, 0.73)	0.63 (0.62,0.65)
Multiracial	0.87 (0.82, 0.94)	0.90 (0.83,0.97)
Unknown	0.92 (0.90, 0.95)	0.87 (0.84,0.91)
Ethnicity		
Not Hispanic or Latino	Reference	Reference
Hispanic or Latino	0.90 (0.88, 0.93)	0.88 (0.85,0.91)
Unknown ethnicity	0.98 (9.95, 1.02)	1.03 (0.98,1.08)
Type of VHA facility		
VHA medical center	Reference	Reference
Community based outpatient clinic	0.98 (0.96, 0.99)	0.95 (0.93, 0.96)
Other	0.97 (0.94, 1.00)	1.07 (1.03, 1.10)
Driving time to tertiary VHA facility		
Q1 (0-34 minutes)	Reference	Reference
Q2 (35-81 minutes)	0.94 (0.92, 0.96)	0.94 (0.92, 0.97)
Q3 (82-133 minutes)	0.94 (0.91, 0.96)	0.89 (0.86, 0.92)
Q4 (>133 minutes)	1.03 (1.00, 1.06)	0.87 (0.84, 0.91)

Type of VHA facility is the site of the first primary care clinic visit between January 1<sup>st</sup> 2019 to December 31<sup>st</sup> 2020 (community-based outpatient center, VHA medical center, or other) and the driving time in minutes to the nearest VHA tertiary center from the patient's address.

Multivariable models adjusted for demographic factors, Zip Code median income, Zip Code social deprivation index, VHA diabetes and service connection, rurality, smoking status, unhealthy alcohol use, hemoglobin A1C, other anti-diabetic agents, hypertension, body mass index, mental health diagnosis, ASCVD, heart failure, no CKD, CKD: estimated GFR and albuminuria categories, number of primary care, cardiology, endocrinology, and nephrology visits, VHA frailty index, COVID-19 diagnosis, VHA station parent facility-complexity level, United States Census Division, Type of VHA facility, and Driving Time to tertiary VHA facility.

**eTable 7.** Association of race and ethnicity with SGLT2i and GLP1-RA prescription restricting study sample to patients with at least two prescription fills during in one year

	SGLT2i	GLP1-RA
Pace	Multivariable Model OR (95% Cl)	Multivariable model OR (95% Cl)
White	Reference	Reference
American Indian or Alaska Native	0.81 (0.75,0.88)	0.90 (0.82,0.98)
Asian, Native Hawaiian or Other Pacific Islander	0.94 (0.89,0.99)	0.81 (0.76,0.86)
Black	0.67 (0.66,0.69)	0.63 (0.62,0.65)
Multiracial	0.85 (0.79, 0.92)	0.87 (0.8,0.95)
Unknown	0.9 (0.87,0.93)	0.84 (0.81,0.88)
Ethnicity		
Not Hispanic or Latino	Reference	Reference
Hispanic or Latino	0.87 (0.84, 0.90)	0.88 (0.85,0.92)
Unknown ethnicity	0.98 (0.94,1.03)	1.04 (0.98,1.09)

Multivariable models adjusted for demographic factors, Zip Code median income, Zip Code social deprivation index, VHA diabetes and service connection, rurality, smoking status, unhealthy alcohol use, hemoglobin A1C, other anti-diabetic agents, hypertension, body mass index, mental health diagnosis, ASCVD, heart failure, no CKD, CKD: estimated GFR and albuminuria categories, number of primary care, cardiology, endocrinology, and nephrology visits, VHA frailty index, COVID-19 diagnosis, VHA station parent facility-complexity level, United States Census Division, Type of VHA facility, and Driving Time to tertiary VHA facility.

eTable 8. Incident prescription rates for SGLT2i from 2017 to 2021

	April-October 2017		April-October 2019		April-October 2021	
Race Category	SLGLT2i incident rate (95% CI)	Incident rate difference (95% CI)	SGLT2i incident rate (95% CI)	Incident rate difference (95% CI)	SGLT2i incident rate (95% CI)	Incident rate difference (95% CI)
White	0.42 (0.41,0.44)	Reference	1.60 (1.55,1.64)	Reference	3.53 (3.44,3.61)	Reference
American Indian or Alaska Native	0.32 (0.21,0.48)	-0.29 (-0.71,0.13)	1.39 (1.15,1.67)	-0.14 (-0.33,0.04)	3 (2.63,3.42)	-0.16 (-0.29,-0.03)
Asian, Native Hawaiian or Other Pacific Islander	0.61 (0.5,0.75)	0.37 (0.16,0.57)	1.67 (1.49,1.87)	0.04 (-0.07,0.15)	3.33 (3.07,3.61)	-0.06 (-0.14,0.02)
Black or African American	0.29 (0.27,0.32)	-0.38 (-0.47,-0.28)	1.11 (1.06,1.16)	-0.37 (-0.41,-0.32)	2.65 (2.56,2.74)	-0.29 (-0.32,-0.26)
Multiracial	0.47 (0.33,0.66)	0.1 (-0.25,0.44)	1.53 (1.28,1.84)	-0.04 (-0.22,0.14)	3.19 (2.8,3.63)	-0.1 (-0.23,0.03)
Unknown	0.36 (0.3,0.42)	-0.18 (-0.34,-0.01)	1.47 (1.36,1.58)	-0.09 (-0.16,-0.01)	3.25 (3.08,3.42)	-0.08 (-0.14,-0.03)
Ethnicity						
Not Hispanic or Latino	0.40 (0.38,0.41)	Reference	1.45 (1.41,1.49)	Reference	3.26 (3.18,3.34)	Reference
Hispanic or Latino	0.3 (0.26,0.34)	-0.29 (-0.44,-0.14)	1.6 (1.51,1.7)	0.10 (0.04,0.16)	3.12 (2.97,3.27)	-0.05 (-0.09,0)
Unknown ethnicity	0.33 (0.27,0.41)	-0.17 (-0.39,0.04)	1.42 (1.28,1.57)	-0.02 (-0.12,0.08)	3.18 (2.97,3.41)	-0.03 (-0.09,0.04)

Rates are per 100 patients with type 2 diabetes not previously prescribed an SLGT2i in the previous interval with marginal estimates averaged over age, sex, and race and ethnicity Rate differences are adjusted for time-period, age, sex, and race and ethnicity

eTable 9. Incident prescription rates for G	GLP1-RA from 2017 to 2021
---	---------------------------

	April-October 2017		April-October 2019		April-October 2021	
Race Category	SLGLT2i incident rate (95% Cl)	Incident rate difference (95% CI)	SGLT2i incident rate (95% Cl)	Incident rate difference (95% CI)	SGLT2i incident rate (95% Cl)	Incident rate difference (95% CI)
White	0.69 (0.66,0.72)	Reference	1.42 (1.38,1.46)	Reference	2.17 (2.11,2.23)	Reference
American Indian or Alaska Native	0.49 (0.34,0.69)	-0.35 (-0.7,0)	1.14 (0.93,1.4)	-0.22 (-0.42,-0.01)	1.59 (1.34,1.89)	-0.31 (-0.48,-0.14)
Asian, Native Hawaiian or Other Pacific Islander	0.71 (0.58,0.86)	0.03 (-0.17,0.22)	1.24 (1.09,1.41)	-0.13 (-0.26,-0.01)	1.58 (1.42,1.76)	-0.32 (-0.42,-0.21)
Black or African American	0.45 (0.42,0.49)	-0.42 (-0.5,-0.34)	0.93 (0.88,0.97)	-0.43 (-0.48,-0.38)	1.42 (1.36,1.48)	-0.43 (-0.47,-0.39)
Multiracial	0.69 (0.51,0.92)	0 (-0.29,0.29)	1.45 (1.2,1.74)	0.02 (-0.17,0.21)	2.09 (1.8,2.44)	-0.04 (-0.19,0.12)
Unknown	0.59 (0.52,0.67)	-0.16 (-0.29,-0.03)	1.18 (1.09,1.29)	-0.18 (-0.27,-0.09)	1.8 (1.68,1.92)	-0.19 (-0.26,-0.12)
Ethnicity						
Not Hispanic or Latino	0.40 (0.38,0.41)	Reference	1.45 (1.41,1.49)	Reference	3.26 (3.18,3.34)	Reference
Hispanic or Latino	0.3 (0.26,0.34)	-0.29 (-0.44,-0.14)	1.6 (1.51,1.7)	0.10 (0.04,0.16)	3.12 (2.97,3.27)	-0.05 (-0.09,0)
Unknown ethnicity	0.33 (0.27,0.41)	-0.17 (-0.39,0.04)	1.42 (1.28,1.57)	-0.02 (-0.12,0.08)	3.18 (2.97,3.41)	-0.03 (-0.09,0.04)

Rates are per 100 patients with type 2 diabetes not previously prescribed a GLP1-RA in the previous interval with marginal estimates averaged over age, sex, race and ethnicity Rate differences are adjusted for time-period, age, sex, race, and ethnicity group

eFigure 1. Algorithm for ascertainment of type 2 diabetes in electronic health records



A type 2 diabetes case requires ICD-10 codes for type 2 diabetes on at least two separate outpatient clinical encounters.

Based on eMERGE algorithm for ascertainment of type 2 diabetes cases and controls in electronic health records<sup>11,13</sup>. Original eMERGE used ICD-9 codes and use glucose levels in addition to A1C concentrations.



## **eFigure 3.** Association between race and ethnicity groups and SGLT2i prescription with sequential adjustment for patient and system-level characteristics



Demographic factors only: age, sex, self-identified race and ethnicity

Additional patient-level characteristics: include demographic factors and Zip Code median income, Zip Code social deprivation index, VHA diabetes and service connection, rurality, smoking status, unhealthy alcohol use, hemoglobin A1C, other anti-diabetic agents, hypertension, body mass index, mental health diagnosis, ASCVD, heart failure, no CKD, CKD: estimated GFR and albuminuria categories, number of primary care, cardiology, endocrinology, and nephrology visits, VHA frailty index, COVID-19 diagnosis. Additional system-level characteristics: VHA station parent facility-complexity level, United States Census Division.

## **eFigure 4.** Association between race and ethnicity groups and GLP1-RA prescription with sequential adjustment for patient and system-level characteristics



Demographic factors only: age, sex, self-identified race and ethnicity

Additional patient-level characteristics: include demographic factors and Zip Code median income, Zip Code social deprivation index, VHA diabetes and service connection, rurality, smoking status, unhealthy alcohol use, hemoglobin A1C, other anti-diabetic agents, hypertension, body mass index, mental health diagnosis, ASCVD, heart failure, no CKD, CKD: estimated GFR and albuminuria categories, number of primary care, cardiology, endocrinology, and nephrology visits, VHA frailty index, COVID-19 diagnosis. Additional system-level characteristics: VHA station parent facility-complexity level, United States Census Division.

eFigure 5. Variability in SGLT2i prescription across VHA stations





eFigure 6. Variability in GLP1-RA prescription across VHA stations

# eFigure 7. Prescription of SGLT2i and GLP1-RA comparing American Indian or Alaska Native patients versus White patients across patient- and system-level characteristics

Subgroup	N (% SGLT2i)	SGLT2i America	an Indian or Native Alaskar	n vs. White aOR (95% Cl)	Subgroup	N (% GLP1ra)	GLP1ra Ame	rican Indian or Native Alaskan vs.White aOR	(95% C <b>I</b> )
Age (years)					Age (years)				
Age<75	920,560 (12,3)	0.87 (0.81, 0.93)	⊢		Age<75	920,560 (8.8)	0.90 (0.83, 0.98)	⊢	
Age≥75	277.354 (5.5.)	0.86 (0.69, 1.09)	· · · · ·		Age≥75	277.354 (4.2.)	1.08 (0.84, 1.37)	` <u>}</u>	
Sex				•	Sex				
Male	1,149,499 (10.8)	0.85 (0.79, 0.91)	<b>⊢</b>		Male	1,149,499 (7.6)	0.91 (0.84, 0.99)	⊢	
Female	48,415 (9.8)	0.88 (0.65, 1.20)			Female	48,415 (11.0)	0.69 (0.51, 0.95)	i	
Service connected					Service connected				
<50%	657,071 (9.8)	0.82 (0.74, 0.91)	⊢		<50%	657,071 (6.8 )	0.89 (0.79, 1.01)	<b>⊢</b> ∎–	
≥50%	540,843 (11.9)	0.88 (0.80, 0.97)	·		≥50%	540,843 (8.9)	0.89 (0.81, 0.99)	<b>⊢</b> ∎–[	
Service connection for diabetes					Service connection for diabetes				
Yes	301,066 (12.8)	0.82 (0.72, 0.94)	⊢		Yes	301,066 (9.6 )	0.93 (0.81, 1.07)	┝╌╸┼┥	
No	896,848 (10.0)	0.86 (0.80, 0.94)	├-=-┤│		No	896,848 (7.1)	0.87 (0.79, 0.96)	<b>⊢</b> ∎-	
Patient rurality					Patient rurality				
Rural/Highly rural	447,543 (10.6)	0.84 (0.76, 0.93)			Rura/Highly rura	447,543 (7.8)	0.81 (0.71, 0.91)	├-■┤ │	
Urban	746,651 (10.8)	0.86 (0.78, 0.94)	├		Urban	746,651 (7.7)	0.96 (0.87, 1.07)	┝╼┼┥	
ZIP code median income					ZIP code median income				
Q1: (<\$44,943)	296,468 (9.5)	0.87 (0.76, 1.00)	. <b></b>		Q1: (<\$44,943)	296,468 (6.6)	0.84 (0.72, 0.98)	<b>⊢</b> =	
Q2: (\$44,943 - \$54,820)	297,425 (10.5)	0.79 (0.68, 0.91)	<b>⊢_</b> = ]		Q2: (\$44,943 - \$54,820)	297,425 (7.7)	0.86 (0.74, 1.01)	<b>⊢</b> • .	
Q3: (\$54,821 - \$69,460)	297,874 (11.2)	0.86 (0.75, 1.00)			Q3: (\$54,821 - \$69,460)	297,874 (8.2)	0.92 (0.78, 1.08)	<b>⊢</b>	
Q4: (>\$69,460)	297,947 (11.8)	0.91 (0.78, 1.05)		-1	Q4: (>\$69,460)	297,947 (8.4 )	0.96 (0.81, 1.13)	╞──╇╎─┤	
ZIP code social deprivation index					ZIP code social deprivation inde	ex			
Q1	298,307 (11.7)	0.90 (0.77, 1.04)		-1	Q1	298,307 (8.4)	0.96 (0.81, 1.14)	_ <b> </b> ]1	
Q2	304,649 (11.1)	0.86 (0.75, 0.99)			Q2	304,649 (8.0 )	0.83 (0.70, 0.99)	►_ <b>=</b>	
Q3	286,830 (10.4)	0.83 (0.72, 0.95)			Q3	286,830 (7.7)	0.91 (0.78, 1.06)	,⊨-∎-¦-1	
Q4	287,747 (9.9 )	0.84 (0.73, 0.96)			Q4	287,747 (7.1)	0.86 (0.74, 1.00)		
ASCVD					ASCVD	202.102.00.11			
Yes	307,467 (14.0)	0.82 (0.72, 0.94)			Yes	307,467 (9.4.)	0.86 (0.73, 1.00)		
	890,447 (9.6 )	0.86 (0.80, 0.94)			No	890,447 (7.2 )	0.91 (0.83, 0.99)	F=1	
	70 001 (11 7)	0.02 (0.04, 4.07)		1	Meant Faijure	70 001 (12 0)	0.07 (0.65, 1.15)		
No	79,991 (14.7) 1 117 032 (10.4)	0.82 (0.64, 1.07)			No	1 117 022 (7.4.)	0.07 (0.03, 1.15)		
CKD	1,117,923 (10.4)	0.65 (0.79, 0.92)	F1		CKD	1,117,923 (7.4 )	0.90 (0.82, 0.97)		
Ves	331 031 (11 4)	0.70 (0.60, 0.01)			Yes	331 031 (10.8)	0.87 (0.76, 1.00)		
No	567 197 (11.4)	0.79 (0.09, 0.91)			No	567 187 (7 3 )	0.07 (0.70, 1.00)		
Linknown	200,606 (8.5.)	0.90 (0.73, 0.95)	<u> </u>	4	Linknown	299 696 (5.1.)	0.86 (0.70, 1.05)		
KDIGO GFR Stage (mL/min/1.73 <sup>2</sup> )	255,050 (0.57)	0.50 (0.77, 1.00)	1 -	1	KDIGO GFR Stage (mL/min/1.73	32)	0.00 (0.7 0, 1.05)	· · ·	
≥60	95,160 (16,5)	0.81 (0.66, 0.98)			≥60	95.160 (11.8)	0.93 (0.75, 1.14)		
45-59	158.496 (10.9)	0.75 (0.60, 0.94)			45-59	158,496 (9.5 )	0.74 (0.59, 0.94)		
15-44	76,469 (6.0)	0.75 (0.49, 1.14)	·		15-44	76,469 (12.5)	1.03 (0.78, 1.36)	· • • • • • • • • • • • • • • • • • • •	
KDIGO Albuminuria Stage (mg/g)			•		KDIGO Albuminuria Stage (mg/	/g)			
ACR<30	95,172 (9.9)	0.93 (0.70, 1.23)			ACR<30	95,172 (9.8)	0.95 (0.71, 1.26)	<b>⊢</b>	
ACR≥30	192,096 (13.2)	0.79 (0.67, 0.92)	<b>⊢</b>		ACR≥30	192,096 (12.2)	0.85 (0.72, 0.99)	<b>⊢</b> ∎−−	
Hemoglobin A1c (%)					Hemoglobin A1c (%)				
≤7	619,593 (4.7)	0.93 (0.81, 1.08)	<b>⊢</b>		≤7	619,593 (2.9)	0.93 (0.78, 1.11)	┝─╼┼┥	
>7-8	269,516 (14.8)	0.89 (0.78, 1.02)		4	>7-8	269,516 (9.9)	1.02 (0.87, 1.18)		
>8-9	124,763 (21.8)	0.87 (0.75, 1.02)		4	>8-9	124,763 (16.9)	0.81 (0.68, 0.97)	┝╤═╼┥╢	
>9	114,121 (22.1)	0.70 (0.60, 0.82)	<b>⊢_</b>		>9	114,121 (19.6)	0.87 (0.75, 1.01)		
Unknown VHA Station Crude Rate of SGLT2	69,921 (10.3)	0.87 (0.66, 1.13)			Unknown VHA Station Crude Bate of	69,921 (5.8)	0.64 (0.44, 0.93)		
Use					GLP1ra Use				
Q1	308,798 (6.0 )	0.80 (0.66, 0.97)			Q1	323,924 (3.5 )	1.12 (0.89, 1.40)	, Fite	
Q2	258,332 (8.7)	0.99 (0.84, 1.16)			Q2	291,763 (6.5 )	0.84 (0.70, 1.00)		
Q3	311,188 (11.6)	0.84 (0.73, 0.97)			03	324,462 (8.9 )	0.88 (0.77, 1.01)		
VHA Station Parent Facility	319,596 (16.1)	0.83 (0.74, 0.92)			VHA Station Parent Facility	257,765 (12.9)	0.86 (0.75, 0.99)		
Complexity Level	514 086 (11 2)	0.83 (0.74, 0.03)			Complexity Level	514 986 (7.4.)	1.02 (0.89, 1.16)		
16	195 689 (11.3)	0.03 (0.74, 0.93)			.a 1b	195 689 (8 3 )	0.68 (0.56, 0.82)		
10 10	187 144 (9.4.)	0.68 (0.54, 0.86)			10	187 144 (6 7 )	0.84 (0.66, 1.07)		
2	156 573 (11 3)	0.00 (0.34, 0.00)			2	156 573 (8.4.)	0.75 (0.61 0.92)		
3	138 277 (11 1)	0.93 (0.78, 1.10)			3	138,277 (8.8.)	1 10 (0 91 1 33)	' <u> </u>	
Division			•	1	Division			· · · · · · · · · · · · · · · · · · ·	
East North Centra	156,148 (10.4)	0.93 (0.72, 1.21)			East North Central	156,148 (8.0)	0.93 (0.70, 1.25)	<b>⊢</b>	
East South Centra	105,573 (11.0)	0.82 (0.60, 1.14)			East South Central	105,573 (9.9 )	0.92 (0.66, 1.28)		
Middle Atlantic	101,238 (9.4 )	0.78 (0.51, 1.19)			Middle Atlantic	101,238 (7.9)	0.88 (0.56, 1.38)	┝────────────────────────	
Mountain	91,754 (9.4 )	0.73 (0.61, 0.88)		-	Mountain	91,754 (10.1)	0.71 (0.59, 0.84)		
New England	38,929 (12.9)	1.10 (0.68, 1.77)	· · · ·		New England	38,929 (9.8 )	1.19 (0.68, 2.09)		
Pacific	126,408 (11.2)	0.95 (0.80, 1.11)	· • •		Pacific	126,408 (9.0)	1.04 (0.87, 1.25)	<b>  -  =  </b>	
South Atlantic	283,648 (9.9)	0.81 (0.66, 1.00)			South Atlantic	283,648 (6.0)	0.91 (0.72, 1.16)		
West North Central	104,894 (13.4)	0.87 (0.71, 1.06)		-1	West North Central	104,894 (9.1 )	0.95 (0.75, 1.21)	J	
West South Centra	171,167 (11.8)	0.88 (0.77, 1.01)	<b>⊢</b> ■ →		West South Central	171,167 (6.0 )	0.89 (0.74, 1.07)	┝──■─┼┥	
Type 2 diabetes status					Type 2 diabetes status				
Prevalent T2D	985,954 (11.4)	0.84 (0.78, 0.90)	⊢		Prevalent T2D	985,954 (8.5 )	0.92 (0.84, 1.00)	. <b>⊢</b> •-,	
Incident T2D	211,960 (7.6)	0.94 (0.79, 1.11)	<b>⊢</b> •		Incident T2D	211,960 (4.2)	0.74 (0.58, 0.95)	<b>⊢</b> −−−−	
									_
			0.6 0.8 1	1.2 1.4 1.8				U.4 0.6 0.8 1 1.2 1.6	2

Multivariable models adjusted for demographic factors, Zip Code median income, Zip Code social deprivation index, VHA diabetes and service connection, rurality, smoking status, unhealthy alcohol use, hemoglobin A1C, other anti-diabetic agents, hypertension, body mass index, mental health diagnosis, ASCVD, heart failure, no CKD, CKD: estimated GFR and albuminuria categories, number of primary care, cardiology, endocrinology, and nephrology visits, VHA frailty index, COVID-19 diagnosis, VHA station parent facility-complexity level, United States Census Division. Abbreviations: ASCVD, atherosclerotic cardiovascular disease: CKD, chronic kidney disease; KDIGO, Kidney **Disease Improving Global** Outcomes CKD classification, T2D, type 2 diabetes. Prevalent T2D includes patients with a diagnosis of type 2 diabetes before January 1<sup>st</sup>, 2019. Incident T2D includes patients with a diagnosis of type 2 diabetes between January 1<sup>st</sup> 2019 to December 31<sup>st</sup>

2020.

bgroup	N (% SGLT2i)	SGLT2i Asian, N	IH or OPI vs. White aOR (95% CI)	Subgroup	N (% GLP1ra)	GLP1ra Asian	, NH or OPI vs.White aOR (95% CI)
(years)				Age (years)			
Age<75	920,560 (12.3)	1.04 (0.99, 1.09)	╟╼┥	Age<75	920,560 (8.8 )	0.88 (0.82, 0.93)	
Age≥75	277,354 (5.5)	0.94 (0.81, 1.09)		Age≥75	277,354 (4.2)	0.78 (0.65, 0.94)	
Sex				Sex			
Male	1.149.499 (10.8)	0.96 (0.92, 1.01)	<b>⊢</b> ∎-	Male	1,149,499 (7,6)	0.81 (0.76, 0.86)	<b>⊢</b> ∎–-]
Female	48 415 (9.8.)	0.84 (0.67, 1.04)		Female	48 415 (11 0)	0.77 (0.62, 0.97)	
Condee connected	40,413 (9.0)	0.04 (0.07, 1.04)		Female Consists connected	40,413 (11.0)	0.77 (0.02, 0.97)	_
service connected	CC7 074 (0.0.)	0.00 (0.04, 0.00)	1 - 1	Service connected	CC3 074 (C 0 )	0.02 (0.75, 0.04)	1 - I
<50%	657,071 (9.8.)	0.90 (0.84, 0.98)		<50%	657,071 (6.8.)	0.83 (0.75, 0.91)	
≥50%	540,843 (11.9)	0.99 (0.93, 1.05)	H	≥50%	540,843 (8.9)	0.80 (0.74, 0.86)	
Service connection for diabetes				Service connection for diabetes	5		
Yes	301,066 (12.8)	1.00 (0.92, 1.09)	. <b>⊢</b> •−1	Yes	301,066 (9.6 )	0.86 (0.78, 0.95)	
No	896,848 (10.0)	0.92 (0.87, 0.97)	⊢	No	896,848 (7.1)	0.76 (0.71, 0.82)	
atient rurality				Patient rurality			
Rural/Highly rural	447,543 (10.6)	1.00 (0.89, 1.11)	<b>⊢_</b> •	Rural/Highly rural	447,543 (7.8)	0.93 (0.81, 1.05)	
Urban	746,651 (10.8)	0.98 (0.93, 1.03)	<b>⊢</b> ■-4	Urban	746,651 (7.7)	0.79 (0.74, 0.85)	<b>—</b>
IP code median income				ZIP code median income			
D1: (<\$44.943)	296.468 (9.5.)	0.94 (0.82, 1.07)		O1: (<\$44.943)	296.468 (6.6.)	0.79 (0.67, 0.93)	L
02: (\$44.943 - \$54.820)	297,425 (10.5)	1.00 (0.08, 1.22)		02: (\$44.943 - \$54.820)	297,425 (7.7.)	0.84 (0.73, 0.97)	' <u> </u>
03: (\$54.821 - \$69.460)	207 874 (11 2)	0.91(0.83, 1.00)		O3: (\$54.821 - \$69.460)	207 874 (8 2 )	0.82 (0.73, 0.97)	
25. (95.,921 - 905,400)	207,074(11.2)	0.07 (0.00, 1.00)		Q3. (994,021 - 909,400)	207,074 (0.2 )	0.80 (0.73, 0.82)	
24. (~305,400) 10. aada aasial daasiisetiaa	297,947 (11.8)	0.97 (0.90, 1.04)	ц <u>-</u> п	(24: (>509,400)	∠97,947 (8.4 )	0.00 (0.73, 0.87)	
ur code social deprivation index				21P code social deprivation ind	ex		1
ų1	298,307 (11.7)	0.86 (0.78, 0.95)	⊢ <b>-</b> -,   ,	Q1	298,307 (8.4)	0.82 (0.72, 0.92)	, <b></b>
Q2	304,649 (11.1)	1.02 (0.93, 1.11)	. <b></b>	Q2	304,649 (8.0)	0.83 (0.74, 0.93)	
Q3	286,830 (10.4)	0.99 (0.90, 1.10)	<b>⊢</b> – <b>4</b> –– <b>1</b>	Q3	286,830 (7.7)	0.78 (0.69, 0.89)	<b>⊢</b> −●−−
Q4	287,747 (9.9)	1.02 (0.93, 1.12)	<b>⊢</b> ,	Q4	287,747 (7.1)	0.80 (0.71, 0.89)	<b>├─</b> ●─┤
SCVD				ASCVD			
Yes	307,467 (14.0)	0.97 (0.88, 1.07)	┝──■┤─┤	Yes	307,467 (9.4)	0.84 (0.75, 0.95)	<b>⊢</b>
No	890.447 (9.6)	0.96 (0.91, 1.02)	` <b>⊢</b> ∎∦`	No	890.447 (7.2.)	0.80 (0.75, 0.85)	
leart Failure			· · · ·	Heart Failure			1.1.1
Vec	70 001 (14 7)	1.05 (0.87, 1.26)		Vec	70 001 (12 0)	0.88 (0.71 1.00)	
res	79,991 (14.7)	1.05 (0.67, 1.20)		res	79,991 (12.0)	0.66 (0.71, 1.09)	
NO	1,117,923 (10.4)	0.95 (0.91, 1.00)		NO	1,117,923 (7.4 )	0.80 (0.75, 0.85)	
CKD				CKD			
Yes	331,031 (11.4)	1.02 (0.94, 1.11)	. <b></b>	Yes	331,031 (10.8)	0.80 (0.72, 0.88)	<b>⊢</b> •−−
No	567,187 (11.5)	0.94 (0.88, 1.01)	<b>⊢</b> ∎–]	No	567,187 (7.3)	0.81 (0.75, 0.88)	
Unknown	299,696 (8.5 )	0.88 (0.79, 0.98)		Unknown	299,696 (5.1)	0.77 (0.67, 0.89)	
(DIGO GFR Stage (mL/min/1.73 <sup>2</sup> )				KDIGO GFR Stage (mL/min/1.7	'3 <sup>2</sup> )		
≥60	95,160 (16,5)	1.04 (0.91, 1.17)	<b>⊢</b>	≥60	95,160 (11.8)	0.89 (0.77, 1.03)	
45-59	158 496 (10 9)	0.99 (0.87, 1.13)		45-59	158 496 (9 5 )	0.80 (0.69, 0.94)	
15 44	76 460 (6 0 )	1 17 (0.02, 1.47)		15.44	76 460 (12 E)	0.67 (0.64, 0.92)	· · · · · · · · · · · · · · · · · · ·
	70,409 (0.0 )	1.17 (0.95, 1.47)		KDICO Albuminunia Stara (ma	70,409 (12.3)	0.07 (0.54, 0.62)	
CDIGO Albuminuna Stage (mg/g)				KDIGO Albuminuna Stage (mg	//g)		
ACR<30	95,172 (9.9.)	0.88 (0.72, 1.07)		ACR<30	95,172 (9.8)	0.84 (0.68, 1.04)	
ACR230	192,096 (13.2)	1.07 (0.97, 1.18)		ACR≥30	192,096 (12.2)	0.80 (0.72, 0.89)	
lemoglobin A1c (%)				Hemoglobin A1c (%)			
≤7	619,593 (4.7)	0.88 (0.80, 0.97)	<b>⊢</b> ∎−-	≤7	619,593 (2.9)	0.66 (0.58, 0.76)	
>7-8	269,516 (14.8)	1.00 (0.91, 1.08)	⊢	>7-8	269,516 (9.9)	0.84 (0.75, 0.93)	<b>⊢</b> ∎−-
>8-9	124,763 (21.8)	0.99 (0.89, 1.10)	i i i i i i i i i i i i i i i i i i i	>8-9	124,763 (16.9)	0.89 (0.79, 1.01)	· · · · · · · · · · · · · · · · · · ·
>9	114 121 (22 1)	1.05 (0.95, 1.16)	· •	>9	114 121 (19.6)	0.85 (0.76, 0.95)	
Inknown	60.021 (10.2)	0.99 (0.74, 1.05)		Linknown	60.021 (5.9.)	0.91 (0.62, 1.02)	
HA Station Crude Rate of SGLT2i	00,021 (10.0)	5.50 (0.74, 1.05)	1 = 11	VHA Station Crude Rate of	00,021 (0.07	5.51 (0.05, 1.05)	
Jse	200 700 /0 2 1	0.00 (0.70 0.00)		GLP1ra Use	222.024 (2.5.)	0.77 (0.66, 0.00)	1
	308,798 (6.0 )	0.86 (0.76, 0.99)		Q1	323,924 (3.5)	0.77 (0.66, 0.90)	
Q2	258,332 (8.7)	0.92 (0.83, 1.02)	<b>⊢_=</b> _ 1	Q2	291,763 (6.5 )	0.85 (0.73, 0.98)	
Q3	311,188 (11.6)	0.98 (0.90, 1.07)	<b>⊢</b> ∎– <u>−</u> ]	Q3	324,462 (8.9 )	0.81 (0.72, 0.91)	<b>⊢_</b>
Q4	319,596 (16.1)	0.98 (0.91, 1.06)	<b>⊢</b> − <b>−</b>	Q4	257,765 (12.9)	0.80 (0.73, 0.87)	├
TA Station Parent Facility				VHA Station Parent Facility			· · · · ·
1a	514,986 (11.3)	0.96 (0.90, 1.02)	<b>⊢</b>	1a	514,986 (7.4)	0.79 (0.73, 0.86)	<b>⊢</b> ∎–-1
14	195 689 (10 0)	0.97 (0.87, 1.09)		16	195 689 (8 3 )	0.76 (0.66, 0.89)	
16	187 144 (0.4.)	1.08 (0.91 1.27)		15	187 144 (6 7 )	0.71 (0.57 0.99)	
	156 572 (11.2)	0.04 (0.79, 1.12)		7	156 572 (0.4.)	0.70 (0.64, 0.00)	
-	130,573 (11.3)	0.94 (0.78, 1.13)		2	130,573 (8.4.)	0.79 (0.04, 0.99)	
3	138,277 (11.1)	0.93 (0.81, 1.06)		3	138,277 (8.8 )	0.94 (0.81, 1.08)	
livision				Division			
East North Centra	156,148 (10.4)	0.89 (0.72, 1.10)		East North Centra	156,148 (8.0 )	0.89 (0.70, 1.13)	
East South Central	105,573 (11.0)	1.16 (0.94, 1.43)		East South Central	105,573 (9.9 )	0.89 (0.70, 1.13)	
and the second	101,238 (9.4 )	0.88 (0.68, 1.14)		Middle Atlantic	101,238 (7.9 )	0.81 (0.60, 1.10)	
Middle Atlantic	91,754 (9.4 )	0.90 (0.77, 1.05)	· • • • • • • • • • • • • • • • • • • •	Mountain	91,754 (10.1)	0.77 (0.65, 0.91)	·
Middle Atlantic Mountain	38,929 (12,9)	0.96 (0.63, 1.45)		New England	38,929 (9,8	0.46 (0.25, 0.87)	· · · · · · · · · · · · · · · · · · ·
Middle Atlantic Mountain New England		1 02 (0.95, 1.10)	· · · · · · · · · · · · · · · · · · ·	Pacific	126 408 (9.0.)	0.85 (0.78 0.03)	
Middle Atlantic Mountain New England Parific	126 408 (11 2)			Facilie Couth Atlantic	120,400 (9.0 )	0.69 (0.57 0.05)	
Middle Atlantic Mountain New England Pacific South Atlantic	126,408 (11.2)	0.04 (0.92, 1.07)		and an end of the second se	∠0.3.040 (0.U.)	v.oo (v.s/, V.81)	
Middle Atlantic Mountain New England Pacific South Atlantic	126,408 (11.2) 283,648 (9.9)	0.94 (0.83, 1.07)		Mart North Control	404.004.004.3	0.04 (0.75, 4.35)	
Middle Atlantic Mountain New England Pacific South Atlantic West North Central	126,408 (11.2) 283,648 (9.9) 104,894 (13.4)	0.94 (0.83, 1.07) 1.02 (0.82, 1.27)		West North Central	104,894 (9.1 )	0.94 (0.72, 1.22)	· · · · · · · · · · · · · · · · · · ·
Middle Atlantic Mountain New England Pacific South Atlantic West North Central West South Central	126,408 (11.2) 283,648 (9.9) 104,894 (13.4) 171,167 (11.8)	0.94 (0.83, 1.07) 1.02 (0.82, 1.27) 0.95 (0.84, 1.08)	┝═╼┾┥ ┝═╼┾┥	West North Central West South Central	104,894 (9.1 ) 171,167 (6.0 )	0.94 (0.72, 1.22) 0.90 (0.75, 1.08)	
Middle Allantic Mountain New England Pacific South Atlantic West North Central West South Central <b>West South Central</b>	126,408 (11.2) 283,648 (9.9) 104,894 (13.4) 171,167 (11.8)	0.94 (0.83, 1.07) 1.02 (0.82, 1.27) 0.95 (0.84, 1.08)		West North Central West South Central Type 2 diabetes status	104,894 (9.1 ) 171,167 (6.0 )	0.94 (0.72, 1.22) 0.90 (0.75, 1.08)	
Middie Atlantic Wountain Pacific South Atlantic West North Central West South Central Ype 2 diabetes status Prevalent T2D	126,408 (11.2) 283,648 (9.9) 104,894 (13.4) 171,167 (11.8) 985,954 (11.4)	0.94 (0.83, 1.07) 1.02 (0.82, 1.27) 0.95 (0.84, 1.08) 0.96 (0.91, 1.01)		West North Central West South Central <b>Type 2 diabetes status</b> Prevalent T2D	104,894 (9.1 ) 171,167 (6.0 ) 985,954 (8.5 )	0.94 (0.72, 1.22) 0.90 (0.75, 1.08) 0.80 (0.75, 0.85)	

2019. Incident T2D includes patients with a diagnosis of type 2 diabetes between January 1<sup>st</sup> 2019 to December 31<sup>st</sup> 2020.

**eFigure 8.** Prescription of SGLT2i and GLP1-RA comparing Asian, Native Hawaiian or Other Pacific Islander patients versus White patients across patient- and system-level characteristics

Multivariable models adjusted for demographic factors, Zip Code median income, Zip Code social deprivation index, VHA diabetes and service connection, rurality, smoking status, unhealthy alcohol use, hemoglobin A1C, other antidiabetic agents, hypertension, body mass index, mental health diagnosis, ASCVD, heart failure, no CKD, CKD: estimated GFR and albuminuria categories, number of primary care, cardiology, endocrinology, and nephrology visits, VHA frailty index, COVID-19 diagnosis, VHA station parent facility-complexity level, United States Census Division. Abbreviations: ASCVD. atherosclerotic cardiovascular disease; CKD, chronic kidney disease; KDIGO, Kidney **Disease Improving Global** Outcomes CKD classification, T2D, type 2 diabetes. Prevalent T2D includes patients with a diagnosis of type 2 diabetes before January 1st,

Subgroup	N (% SGLT2i)	SGLT2i Multiracial v	s. White aOR (95% CI)
Age (years)			1-1
Age<75	920,560 (12.3)	0.92 (0.86, 0.99)	, <b>1</b> 44
Age≥/5	2/7,354 (5.5.)	0.76 (0.60, 0.97)	
Sex	1 140 400 (10 0)	0.00.00.00.0040	
Female	48.415.(9.8.)	0.05 (0.02, 0.94)	
Service connected	40,413 (5.07	0.55 (0.71, 1.27)	1 - 1
<50%	657.071 (9.8.)	0.83 (0.75, 0.93)	⊢
≥50%	540,843 (11.9)	0.92 (0.84, 1.01)	' <b>⊨</b> ∔
Service connection for diabetes			
Yes	301,066 (12.8)	0.91 (0.80, 1.04)	<b>⊢_</b> ∎
No	896,848 (10.0)	0.86 (0.80, 0.94)	<b>⊢</b> ∎-   `
Patient rurality			
Rural/Highly rural	447,543 (10.6)	0.89 (0.79, 1.01)	<b>⊢</b> •-]
Urban	746,651 (10.8)	0.88 (0.81, 0.96)	<b>⊢</b> ∎-1
ZIP code median income			
Q1: (<\$44,943)	296,468 (9.5 )	1.00 (0.87, 1.16)	
Q2: (\$44,943 - \$54,820)	297,425 (10.5)	0.87 (0.75, 1.01)	
Q3: (\$54,821-\$09,400)	297,874 (11.2)	0.81 (0.70, 0.93)	
ZIP code cocial deprivation index	297,947 (11.0)	0.00 (0.70, 0.90)	
O1	208 207 (11 7)	0.77 (0.67, 0.90)	
02	304 649 (11.1)	0.85 (0.74, 0.97)	
03	286.830 (10.4)	0.94 (0.82, 1.07)	' <mark>F</mark>
Q4	287,747 (9.9 )	0.96 (0.84, 1.10)	°⊢_∎–́⊣
ASCVD			
Yes	307,467 (14.0)	0.81 (0.71, 0.93)	<b>⊢</b> •
No	890,447 (9.6 )	0.92 (0.85, 0.99)	<b>⊢</b> ⊷́_
Heart Failure			
Yes	79,991 (14.7)	0.94 (0.74, 1.20)	<b>├──</b> ₽┤──┤
No	1,117,923 (10.4)	0.87 (0.81, 0.94)	-■-
СКД			
Yes	331,031 (11.4)	0.82 (0.71, 0.93)	⊢••-I
No	567,187 (11.5)	0.88 (0.80, 0.97)	⊢•-I
Unknown	299,696 (8.5 )	0.98 (0.85, 1.15)	
KDIGO GFR Stage (mL/min/1.734)			
260	95,160 (16.5)	0.81 (0.66, 1.00)	
40-09	158,496 (10.9)	0.80 (0.66, 0.98)	
KDIGO Albuminuria Stage (mg/g)	/0,409 (0.0 )	0.61 (0.54, 1.20)	
ACR<30	95 172 (9.9.)	0.82(0.63, 1.08)	
ACR>30	192 096 (13 2)	0.83 (0.71 0.97)	' <b></b> '
Hemoglobin A1c (%)			
≤7	619,593 (4.7)	0.93 (0.82, 1.07)	⊢⊷⊣
>7-8	269,516 (14.8)	0.81 (0.71, 0.92)	<b>⊢</b> •−↓   `
>8-9	124,763 (21.8)	0.97 (0.83, 1.13)	· +-++
>9	114,121 (22.1)	0.89 (0.76, 1.05)	┝─■┤┤
Unknown	69,921 (10.3)	0.87 (0.65, 1.18)	<b>⊢</b>
Use			
Q1	308,798 (6.0 )	0.87 (0.73, 1.05)	,⊢•- <u>+</u> I
Q2	258,332 (8.7)	0.83 (0.70, 0.98)	<b>⊢</b> ••• .
Q3	311,188 (11.6)	0.94 (0.83, 1.07)	, <mark>⊨=</mark> ¦-1
Q4 VHA Station Parent Facility	319,596 (16.1)	0.86 (0.77, 0.97)	H=-1
Complexity Level	F14.006 (11.0)	0.02 (0.72, 0.01)	
10 1h	314,900 (11.3) 105 690 (10.0)	0.02 (0.73, 0.91)	
10 1c	195,089 (10.0)	1.05 (0.90, 1.22)	
2	107,144 (9.4.)	0.70 (0.02, 0.94)	
-	138,277 (11.1)	0.91 (0.70, 1.09)	
Division	100,677 (11,1)	0.01 (0.00) 1.10)	1 - 1
East North Central	156,148 (10.4)	0.88 (0.69, 1.12)	<b>⊢</b>
East South Central	105,573 (11.0)	0.77 (0.58, 1.01)	
Middle Atlantic	101,238 (9.4 )	0.67 (0.51, 0.87)	
Mountain	91,754 (9.4 )	0.87 (0.67, 1.13)	· • • • • • • • • • • • • • • • • • • •
New England	38,929 (12.9)	0.58 (0.36, 0.92)	·
Pacific	126,408 (11.2)	0.98 (0.83, 1.15)	<b>⊢</b> •
South Atlantic	283,648 (9.9)	0.86 (0.73, 1.01)	_ <b>⊢</b> •−) ``
West North Central	104,894 (13.4)	0.84 (0.65, 1.09)	► <b></b> •
West South Central	171,167 (11.8)	1.00 (0.87, 1.15)	<b>⊢+</b> -1
Type 2 diabetes status			
Prevalent T2D	985,954 (11.4)	0.88 (0.82, 0.95)	, H•H   .
Incident 12D	211,960 (7.6)	0.90 (0.74, 1.09)	
		_	
			0.4 0.6 0.8 1 1.4

ubgroup	N (% GLP1ra)	GLP1ra Multiracia	vs.White aOR (95% CI)
Age (years)			
Age<75	920,560 (8.8 )	0.94 (0.86, 1.02)	<b>⊢</b> ∎-
Age≥75	277,354 (4.2 )	0.87 (0.67, 1.14)	
Sex			
Male	1,149,499 (7.6)	0.88 (0.81, 0.96)	<b>├</b> ■┥
Female	48,415 (11.0)	1.15 (0.88, 1.51)	<b>⊢</b>
Service connected			
<50%	657,071 (6.8 )	0.93 (0.82, 1.05)	┝╼┼┥
≥50%	540,843 (8.9 )	0.88 (0.79, 0.98)	<b>⊢</b> ∎-
Service connection for diabetes			
Yes	301,066 (9.6 )	0.91 (0.79, 1.06)	<b>⊢</b> -∎- -
No	896,848 (7.1)	0.89 (0.81, 0.98)	<b>⊢</b> ∎-
Patient rurality			
Rural/Highly rural	447,543 (7.8 )	0.97 (0.84, 1.12)	⊢
Urban	746,651 (7.7)	0.88 (0.80, 0.97)	H-H
ZIP code median income			
Q1: (<\$44,943)	296,468 (6.6 )	0.97 (0.82, 1.15)	<b>⊢</b> ∎–⊣
Q2: (\$44,943 - \$54,820)	297,425 (7.7)	0.98 (0.83, 1.15)	Ì⊷ <b>i</b> ⊷i
Q3: (\$54,821 - \$69,460)	297,874 (8.2 )	0.82 (0.69, 0.96)	<b>⊢</b> •−↓
Q4: (>\$69,460)	297,947 (8.4 )	0.89 (0.76, 1.03)	· • • •
ZIP code social deprivation inde	x		
01	298.307 (8.4)	0.92 (0.78, 1.09)	┝╌┓┼┥
02	304.649 (8.0.)	0.86 (0.73, 1.00)	L'all'
03	286 830 (7.7.)	0.98 (0.84, 1.15)	
<u>~</u>	287 747 (7 1)	0.85 (0.04, 1.13)	
ASCVD	201,191 (1.1.)	0.00 (0.72, 1.01)	
Ves	307.467.04	0.01 (0.78, 1.04)	
No	307,407 (9.4.)	0.91 (0.76, 1.06)	
NO TO THE REPORT OF	890,447 (7.2.)	0.91 (0.83, 1.00)	
Heart Failure			
Yes	79,991 (12.0)	0.85 (0.64, 1.11)	
No	1,117,923 (7.4 )	0.90 (0.83, 0.98)	F=-1
CKD			
Yes	331,031 (10.8)	0.85 (0.74, 0.98)	
No	567,187 (7.3 )	0.91 (0.81, 1.03)	. <b>⊢</b> •-∦
Unknown	299,696 (5.1 )	0.98 (0.81, 1.19)	<b>⊢_</b> ■
KDIGO GFR Stage (mL/min/1.73	12)		
≥60	95,160 (11.8)	0.80 (0.63, 1.02)	<b>⊢_</b> •
45-59	158,496 (9.5 )	0.89 (0.72, 1.09)	
15-44	76,469 (12.5)	0.90 (0.68, 1.21)	<b>├──</b> ■- <u>├</u> ─-
KDIGO Albuminuria Stage (mg/	g)		
ACR<30	95,172 (9.8)	0.86 (0.66, 1.14)	<b>├──●</b> ─┤─┤
ACR≥30	192,096 (12.2)	0.84 (0.71, 0.99)	<b>⊢</b> ∎−┥
Hemoglobin A1c (%)			
≤7	619,593 (2.9)	0.91 (0.77, 1.08)	<b>⊢_</b> ∎_ -
>7-8	269,516 (9.9)	0.78 (0.66, 0.91)	┝━━━┥│
>8-9	124,763 (16.9)	0.92 (0.77, 1.09)	<b>⊢</b> •-+-
>9	114,121 (19.6)	1.04 (0.89, 1.22)	· ⊢+=-́{
Unknown	69,921 (5.8)	1.15 (0.80, 1.63)	<u>⊢</u>
VHA Station Crude Rate of			
Q1	323,924 (3.5 )	0.92 (0.74, 1.15)	<b>⊢</b>
02	291.763 (6.5 )	0.90 (0.76, 1.07)	` <b>⊢_</b> ∎-↓4 `
Q3	324,462 (8.9.)	0.94 (0.81, 1.08)	′ <b>⊢_</b> ∎¦4́
04	257,765 (12.9)	0.87 (0.76, 1.00)	⊢ ′
VHA Station Parent Facility			I -
Complexity Level	514 986 (7.4.)	0.85 (0.74, 0.97)	
1b	105 680 (8 3 )	1.05 (0.04, 0.07)	
10	193,009 (0.3 )	0.95 (0.69, 1.23)	
7	107,144 (0.7.)	0.80 (0.73, 1.03)	
2	100,073 (0.4.)	0.03 (0.72, 1.10)	
J Division	130,277 (8.8.)	0.93 (0.76, 1.15)	
East North Control	455 440 (0.0.)	0.02 (0.02 4.00)	
East worth Central	150,148 (8.0.)	0.83 (0.63, 1.09)	
East South Central	105,573 (9.9.)	0./7 (0.57, 1.04)	
Middle Atlantic	101,238 (7.9 )	0.86 (0.64, 1.16)	· · · · · · · · · · · · · · · · · · ·
Mountain	91,754 (10.1)	1.01 (0.78, 1.30)	· · · · · · · · · · · · · · · · · · ·
New England	38,929 (9.8 )	0.57 (0.34, 0.95)	
Pacific	126,408 (9.0 )	0.93 (0.77, 1.12)	,
South Atlantic	283,648 (6.0 )	0.91 (0.75, 1.11)	·
West North Central	104,894 (9.1 )	0.76 (0.56, 1.03)	<b>⊢</b>
West South Central	171,167 (6.0 )	1.09 (0.91, 1.30)	┝┼╺╾┥
Type 2 diabetes status			
Prevalent T2D	985,954 (8.5 )	0.90 (0.83, 0.98)	<b>⊢</b> ∎-
Incident T2D	211,960 (4.2 )	0.90 (0.70, 1.17)	<u> </u>
		-	
			04 06 08 1 12 16

# **eFigure 9.** Prescription of SGLT2i and GLP1-RA comparing Multiracial patients versus White patients across patient- and system-level characteristics

Multivariable models adjusted for demographic factors, Zip Code median income, Zip Code social deprivation index, VHA diabetes and service connection, rurality, smoking status, unhealthy alcohol use, hemoglobin A1C, other anti-diabetic agents, hypertension, body mass index, mental health diagnosis, ASCVD, heart failure, no CKD, CKD: estimated GFR and albuminuria categories, number of primary care, cardiology, endocrinology, and nephrology visits, VHA frailty index, COVID-19 diagnosis, VHA station parent facility-complexity level, United States Census Division.

Abbreviations: ASCVD, atherosclerotic cardiovascular disease; CKD, chronic kidney disease; KDIGO, Kidney Disease Improving Global Outcomes CKD classification, T2D, type 2 diabetes.

Prevalent T2D includes patients with a diagnosis of type 2 diabetes before January 1<sup>st</sup>, 2019. Incident T2D includes patients with a diagnosis of type 2 diabetes between January 1<sup>st</sup> 2019 to December 31<sup>st</sup> 2020. eFigure 10. Prescription of SGLT2i and GLP1-RA comparing patients with Unknown race versus White patients across patient- and system-level characteristics

Subgroup	N (% SGLT2i)	SGLT2i Unknown vs. White a	or (95% C <b>I</b> )
Age (vears)			
Age<75	920,560 (12.3)	0.93 (0.90, 0.96)	H=-1
Age≥75	277,354 (5.5)	0.95 (0.87, 1.04)	⊢÷÷-́-́-́-́-́-́-́-́-́-́-́-́-́-́-́-́-́-́-
Sex			
Male	1,149,499 (10.8)	0.92 (0.89, 0.95)	=
Female	48,415 (9.8)	0.97 (0.82, 1.15)	<b>├</b> ─── <b>●</b> ├───┤
Service connected			
<50%	657,071 (9.8)	0.90 (0.86, 0.94)	<b>⊢</b> =-
≥50%	540,843 (11.9)	0.95 (0.91, 0.99)	┝╼╢
Service connection for diabetes			
Yes	301,066 (12.8)	0.97 (0.92, 1.03)	. <del>  =    </del>
No	896,848 (10.0)	0.91 (0.87, 0.94)	H=1
Patient rurality			
Rural/Highly rural	447,543 (10.6)	0.96 (0.91, 1.02)	1 1
Urban	746,651 (10.8)	0.91 (0.87, 0.94)	F=1
ZIP code median income	205 152 (0.5.)	0.05 (0.00 4.04)	
Q1: (<544,943)	290,408 (9.5 )	0.95 (0.89, 1.01)	
Q2: (\$44,943 - 354,620)	297,425 (10.5)	0.90 (0.85, 0.97)	
Q3. (\$54,021-305,400)	297,874 (11.2)	0.95 (0.89, 1.01)	
ZIP code social deprivation index	257,547 (11.0)	0.05 (0.04, 0.55)	1 - 1
01	298 307 (11 7)	0.90 (0.85, 0.96)	
02	304 649 (11 1)	0.95 (0.89, 1.01)	' <b></b> -
03	286,830 (10.4)	0.93 (0.87, 0.99)	
04	287.747 (9.9.)	0.91 (0.86, 0.97)	<u>⊢</u> 1]
ASCVD			
Yes	307,467 (14.0)	0.96 (0.90, 1.02)	<b>⊢</b>
No	890,447 (9.6)	0.91 (0.88, 0.95)	Hind I'
Heart Failure			
Yes	79,991 (14.7)	0.91 (0.81, 1.03)	<b>⊢</b>
No	1,117,923 (10.4)	0.92 (0.89, 0.96)	· +=+   ·
CKD			
Yes	331,031 (11.4)	0.94 (0.88, 1.00)	⊢
No	567,187 (11.5)	0.90 (0.86, 0.94)	┝╼┤│
Unknown	299,696 (8.5)	0.95 (0.89, 1.01)	<b>├─</b> ■─┤
KDIGO GFR Stage (mL/min/1.73 <sup>2</sup> )			
≥60	95,160 (16.5)	0.95 (0.87, 1.05)	, <b>⊨_</b> , j]
45-59	158,496 (10.9)	0.90 (0.82, 0.99)	. <b>⊢</b> •  .
15-44	76,469 (6.0 )	0.98 (0.83, 1.16)	
KDIGO Albuminuria Stage (mg/g)			
ACR<30	95,172 (9.9 )	0.92 (0.81, 1.04)	
ACR≥30	192,096 (13.2)	0.96 (0.90, 1.04)	┝╼┼┥
Hemoglobin A1c (%)			1 - 1
5/	619,593 (4.7)	0.86 (0.80, 0.91)	
>7-8	269,516 (14.8)	0.92 (0.87, 0.98)	
>8-9	124,763 (21.6)	0.97 (0.91, 1.05)	
Linknown	60.021 (10.2)	0.97 (0.90, 1.04)	
VHA Station Crude Rate of SGLT	2i	0.00 (0.70, 0.90)	
Use 01	308 798 (6.0.)	0.92 (0.85, 1.00)	
02	258 332 (8.7.)	0.87 (0.80, 0.94)	
03	311 188 (11 6)	0.91 (0.86, 0.97)	' <b>Fa</b> il
04	319 596 (16.1)	0.96 (0.91, 1.01)	·
VHA Station Parent Facility	0101000 (1011)	0.50 (0.51, 1.01)	
Ta 1a	514.986 (11.3)	0.90 (0.86, 0.94)	H=-1
1b	195.689 (10.0)	0.95 (0.88, 1.04)	` <b>⊢_</b> =_ _4
1c	187,144 (9.4 )	0.99 (0.90, 1.08)	i parti di seconda di s
2	156,573 (11.3)	0.93 (0.85, 1.02)	i i i i i i i i i i i i i i i i i i i
3	138,277 (11.1)	0.95 (0.87, 1.04)	·
Division			
East North Central	156,148 (10.4)	0.90 (0.82, 1.00)	<b>⊢</b>
East South Central	105,573 (11.0)	0.90 (0.80, 1.00)	⊢∎–↓
Middle Atlantic	101,238 (9.4 )	0.91 (0.78, 1.05)	▶
Mountain	91,754 (9.4 )	0.87 (0.78, 0.98)	
New England	38,929 (12.9)	1.06 (0.88, 1.28)	. <b>⊢</b>
Pacific	126,408 (11.2)	0.94 (0.87, 1.02)	. <b>⊢</b>
South Atlantic	283,648 (9.9)	0.87 (0.81, 0.94)	<b>⊢</b> •  [
West North Central	104,894 (13.4)	0.91 (0.82, 1.01)	<b>⊢</b> •–,¶ .
West South Central	171,167 (11.8)	1.02 (0.96, 1.10)	⊢¦=
Type 2 diabetes status			
Prevalent T2D	985,954 (11.4)	0.92 (0.89, 0.96)	, H <b>e</b> t
Incident T2D	211,960 (7.6)	0.93 (0.85, 1.00)	

0.5 0.6 0.7 0.9 1 1.1 1.3 1.5

Subgroup	N (% GLP1ra)	GLP1ra Unknown vs.White a	OR (95% CI)
Age (vears)			
Age<75	920,560 (8.8)	0.89 (0.85, 0.92)	H=-1
Age≥75	277,354 (4.2)	0.85 (0.77, 0.94)	
Sex			
Male	1,149,499 (7.6 )	0.87 (0.84, 0.90)	. <b>⊢=</b> -
Female	48,415 (11.0)	0.98 (0.82, 1.15)	<b>⊢</b> −• −−1
Service connected			
<50%	657,071 (6.8 )	0.84 (0.79, 0.88)	H=
≥50%	540,843 (8.9 )	0.91 (0.87, 0.96)	H=-1
Service connection for diabetes			1 - 1
Yes No	301,066 (9.6.)	0.86 (0.80, 0.92)	
Patient rurality	090,040 (7.1.)	0.86 (0.84, 0.92)	
Bural/Highly rural	447 543 (7.8.)	0.85 (0.80, 0.91)	
Urban	746 651 (7.7.)	0.89 (0.85, 0.93)	. ⊢ <b>-</b> ∔
ZIP code median income			
Q1: (<\$44,943)	296,468 (6.6)	0.85 (0.79, 0.92)	
Q2: (\$44,943 - \$54,820)	297,425 (7.7)	0.83 (0.77, 0.90)	i i i
Q3: (\$54,821 - \$69,460)	297,874 (8.2)	0.89 (0.83, 0.96)	
Q4: (>\$69,460)	297,947 (8.4)	0.91 (0.85, 0.98)	⊢
ZIP code social deprivation index	c c		
Q1	298,307 (8.4)	0.94 (0.87, 1.02)	. <b>F</b> -H
Q2	304,649 (8.0)	0.85 (0.78, 0.91)	
Q3	286,830 (7.7)	0.92 (0.85, 0.99)	
Q4	287,747 (7.1)	0.81 (0.75, 0.87)	
ASCVD	202.452.00.43	0.05 (0.00, 0.00)	
No	307,467 (9.4.)	0.86 (0.80, 0.93)	
Heart Failure	090,447 (7.2.)	0.88 (0.84, 0.92)	
Ves	79 991 (12 0)	0.90 (0.78, 1.03)	
No	1 117 923 (7.4.)	0.87 (0.84, 0.91)	' Fed 1'
СКР			
Yes	331,031 (10.8)	0.84 (0.78, 0.89)	<b>⊢</b>
No	567,187 (7.3)	0.87 (0.83, 0.93)	· ⊢•
Unknown	299,696 (5.1)	0.93 (0.86, 1.01)	┣━━━┤
KDIGO GFR Stage (mL/min/1.73	9		
≥60	95,160 (11.8)	0.86 (0.77, 0.96)	. [
45-59	158,496 (9.5 )	0.78 (0.71, 0.87)	
15-44	76,469 (12.5)	0.89 (0.79, 1.02)	<b>⊢</b>
KDIGO Albuminuria Stage (mg/g	I)		
ACR<30	95,172 (9.8 )	0.79 (0.69, 0.90)	
ACR230	192,096 (12.2)	0.86 (0.79, 0.93)	
c7	610 502 (2.0.)	0.83 (0.75, 0.80)	
>7-8	269 516 (9.9.)	0.88 (0.82, 0.95)	
>8-9	124,763 (16.9)	0.92 (0.85, 1.00)	' <b>⊢</b> ∎ <u>́</u>
>9	114,121 (19.6)	0.87 (0.81, 0.94)	
Unknown	69,921 (5.8)	0.85 (0.73, 0.98)	
VHA Station Crude Rate of GLP1ra Lise			
Q1	323,924 (3.5)	0.87 (0.79, 0.97)	<b>⊢</b> ∎
Q2	291,763 (6.5 )	0.86 (0.79, 0.94)	► <b>--</b> - <b>1</b>
Q3	324,462 (8.9)	0.89 (0.83, 0.95)	
Q4 VHA Station Parent Facility	257,765 (12.9)	0.88 (0.82, 0.94)	
Complexity Level			
1a	514,986 (7.4)	0.87 (0.82, 0.92)	
15	195,689 (8.3.)	0.87 (0.79, 0.96)	
7	187,144 (0.7)	0.87 (0.78, 0.97)	
3	138,575 (0.4)	0.92 (0.82, 1.03)	
Division	130,277 (0.07)	0.07 (0.70; 0.37)	1 - 1
East North Central	156,148 (8.0 )	0.85 (0.76, 0.96)	<b>⊢</b> −−−−↓
East South Central	105,573 (9.9 )	0.91 (0.81, 1.03)	· • • • • • • • • • • • • • • • • • • •
Middle Atlantic	101,238 (7.9 )	0.97 (0.82, 1.14)	╎┝───╡───┤
Mountain	91,754 (10.1)	0.95 (0.85, 1.06)	· · · · · · · · · · · · · · · · · · ·
New England	38,929 (9.8 )	0.81 (0.64, 1.03)	
Pacific	126,408 (9.0)	0.83 (0.75, 0.91)	
South Atlantic	283,648 (6.0 )	0.82 (0.74, 0.91)	.⊢•-(
West North Central	104,894 (9.1 )	0.80 (0.70, 0.91)	
west South Central	171,167 (6.0 )	0.99 (0.90, 1.09)	<b>⊢</b> •
i ype 2 diabetes status	005.054 (0.5.)	0.07 (0.04, 0.01)	
Incident T2D	211 060 (4 2 )	0.07 (0.04, 0.91)	
• · · · · · · · · · · · · · · · · · · ·		010 ( (010m) 110h)	1 T P

0.5 0.6 0.7 0.9 1 1.1 1.3 1.5

Multivariable models adjusted for demographic factors, Zip Code median income, Zip Code social deprivation index, VHA diabetes and service connection, rurality, smoking status, unhealthy alcohol use, hemoglobin A1C, other antidiabetic agents, hypertension, body mass index, mental health diagnosis, ASCVD, heart failure, no CKD, CKD: estimated GFR and albuminuria categories, number of primary care, cardiology, endocrinology, and nephrology visits, VHA frailty index, COVID-19 diagnosis, VHA station parent facilitycomplexity level, United States Census Division. Abbreviations: ASCVD, atherosclerotic cardiovascular disease; CKD, chronic kidney disease; KDIGO, Kidney Disease Improving Global Outcomes CKD classification, T2D, type 2 diabetes. Prevalent T2D includes patients with a diagnosis of type 2 diabetes before January 1<sup>st</sup>, 2019. Incident T2D includes patients with a diagnosis of type 2 diabetes between January 1st 2019 to December 31<sup>st</sup> 2020.



### eFigure 11. Incident prescription rates for SGLT2i from 2017 to 2021 across race groups

Rates are per 100 patients with type 2 diabetes not previously prescribed a GLP1-RA in the previous interval with marginal estimates averaged over age, sex, race and ethnicity





Rates are per 100 patients with type 2 diabetes not previously prescribed a GLP1-RA in the previous interval with marginal estimates averaged over age, sex, race and ethnicity





Rates are per 100 patients with type 2 diabetes not previously prescribed a GLP1-RA in the previous interval with marginal estimates averaged over age, sex, race and ethnicity





Rates are per 100 patients with type 2 diabetes not previously prescribed a GLP1-RA in the previous interval with marginal estimates averaged over age, sex, race and ethnicity

#### eAppendix. Sensitivity analyses

Multiple sensitivity analyses were conducted. First, we conducted multivariable regression analyses adding an indicator variable to identify the site of the first primary care clinic visit within the study period (community-based outpatient center, VHA medical center, or other) and the driving time in minutes to the nearest VHA tertiary center from the patient's address. Second, the analyses were restricted to patients that had at least 2 prescription fills for SGLT2i and GLP1-RA prescription in a single year: January 1<sup>st</sup> 2019 to December 31<sup>st</sup> 2019. Third, because the prescription analyses combined prevalent and incident prescriptions, we conducted analyses for trends in incident prescription across race and ethnicity groups. For every 6-month-interval between April 1<sup>st</sup>, 2017, through April 30<sup>th</sup>, 2021, we assessed new SGLT2i and GLP1-RA prescriptions defined as new prescriptions within the interval and absence of prescriptions in the 18-month period prior<sup>14</sup>. Fourth, to assess the influence of system-level differences in racial composition across facilities, we included a VHA station specific race percentage to the multilevel models<sup>15</sup>. We assessed whether the association of an individual's race with prescription differed by the racial composition of the VHA station by including an interaction term between individual's race and VHA station-level percentage of a given racial category.

### Results

Analyses that included the type of VHA facility and the driving time to a tertiary VHA facility are presented in **Supplement eTables 4 and 5**. Analyses that restricted the outcome to at least two prescription fills per year are presented in **Supplement eTable 6**. Results were consistent with the main findings.

Analyses that assessed incident prescriptions of SGLT2i and GLP1-RA prescriptions demonstrated that they have increased for all racial and ethnic groups (Supplement eTables 7 and 8 and eFigures 12-14). Differences in the racial composition across facilities were not associated with statistically significant differences of SGLT2i or GLP1-RA prescription; VHA station-specific proportion of Black race individuals was not associated with prevalence of these prescriptions, independent of individual patient race: adjusted odds ratio (95% CI) 0.99 (0.99, 1.01) for SGLT2i © 2022 American Medical Association. All rights reserved. and 1.00 (0.99, 1.01) for GLP1-RA. For SGLT2i, the association of an individual's race with prescription did not significantly differ by the racial

composition of the facility (p=0.398 for interaction between race category and station-level racial composition); conversely, a Black individual had

lower likelihood of GLP1-RA prescription within a facility comprising higher versus lower percentage of Black patients (p=0.023).

### eReferences

- 1. Council NR, Others. Using the American Community Survey: Benefits and Challenges. National Academies Press; 2007.
- 2. Butler DC, Petterson S, Phillips RL, Bazemore AW. Measures of social deprivation that predict health care access and need within a rational area of primary care service delivery. *Health Serv Res.* 2013;48(2 Pt 1):539-559.
- 3. Hall SA, Kaufman JS, Ricketts TC. Defining urban and rural areas in U.S. epidemiologic studies. J Urban Health. 2006;83(2):162-175.
- 4. VHA disability ratings. Veterans Affairs. Published February 4, 2022. Accessed June 14, 2022. <u>https://www.va.gov/disability/about-disability-ratings/</u>
- 5. Bradley KA, Bush KR, Epler AJ, et al. Two brief alcohol-screening tests From the Alcohol Use Disorders Identification Test (AUDIT): validation in a female Veterans Affairs patient population. *Arch Intern Med*. 2003;163(7):821-829.
- 6. Krein SL, Bingham CR, McCarthy JF, Mitchinson A, Payes J, Valenstein M. Diabetes treatment among VA patients with comorbid serious mental illness. Psychiatr Serv. 2006 Jul;57(7):1016–21.
- 7. Norton JM, Ali K, Jurkovitz CT, Kiryluk K, Park M, Kawamoto K, et al. Development and Validation of a Pragmatic Electronic Phenotype for CKD. Clin J Am Soc Nephrol. 2019 Sep 6;14(9):1306–14.
- 8. Eknoyan G, Lameire N, Eckardt K, Kasiske B, Wheeler D, Levin A, et al. KDIGO 2012 clinical practice guideline for the evaluation and management of chronic kidney disease. Kidney Int. 2013;3(1):5–14.
- 9. Groeneveld PW, Medvedeva EL, Walker L, Segal AG, Richardson DM, Epstein AJ. Outcomes of Care for Ischemic Heart Disease and Chronic Heart Failure in the Veterans Health Administration. JAMA Cardiol. 2018 Jul 1;3(7):563–71.
- 10. Tison GH, Chamberlain AM, Pletcher MJ, Dunlay SM, Weston SA, Killian JM, et al. Identifying heart failure using EMR-based algorithms. Int J Med Inform. 2018 Dec;120:1–7.
- 11. Newton KM, Peissig PL, Kho AN, et al. Validation of electronic medical record-based phenotyping algorithms: results and lessons learned from the eMERGE network. *J Am Med Inform Assoc.* 2013;20(e1):e147-54.
- 12. Cheng D, DuMontier C, Yildirim C, et al. Updating and Validating the U.S. Veterans Affairs Frailty Index: Transitioning From ICD-9 to ICD-10. *J Gerontol A Biol Sci Med Sci*. 2021;76(7):1318-1325.
- 13. Kho AN, Hayes MG, Rasmussen-Torvik L, et al. Use of diverse electronic medical record systems to identify genetic risk for type 2 diabetes within a genome-wide association study. *J Am Med Inform Assoc*. 2012;19(2):212-218.
- 14. Dave CV, Schneeweiss S, Wexler DJ, Brill G, Patorno E. Trends in Clinical Characteristics and Prescribing Preferences for SGLT2 Inhibitors and GLP-1 Receptor Agonists, 2013-2018. *Diabetes Care*. 2020;43(4):921-924.
- 15. Neuhaus JM, McCulloch CE. Separating between- and within-cluster covariate effects by using conditional and partitioning methods. *J R Stat Soc Series B Stat Methodol*. 2006;68(5):859-872.