Supplemental Tables and Figures for the manuscript:

Palella et al. “Non-AIDS comorbidity burden differs by sex, race, and insurance type in aging adults in HIV care”. AIDS, 2019.

Appendix A: Defining chronic conditions in the HIV Outpatient Study database

Condition	Diagnoses	Labs / Measurements	Treatments / Procedures	Comments
1. Cardiovascular Disease (including stroke)	myocardial infarction, angina, coronary artery disease, heart stenting, cerebrovascular accident, transient ischemic attack, peripheral vascular disease, aneurysm, other vascular where “claudication” is specified. cardiomyopathy, cardiomegaly, congestive heart failure, cor pulmonale, mitral valve regurgitation, prolapse and stenosis, aortic valve stenosis, aortic valve regurgitation, tricuspid valve regurgitation, cardiac arrhythmias, right ventricular heart failure, endocarditis, myocarditis, pulmonary hypertension.	N/A	bypass surgery, angioplasty, stent if ‘heart’ or ‘coronary’ also listed valve surgery	Diagnosis or Treatment alone can put patient in this category

Condition	Diagnoses	Labs / Measurements	Treatments / Procedures	Comments
2. Diabetes (distinct from impaired glucose control, below)	Diabetes	<u>Fasting labs – one required</u> fasting glucose > 125 mg/dL, ≥ 7 mmol/l glucose 2-hour test result > 200 mg/dL or ≥ 11 mmol/l <u>Non-fasting (random) labs – two required:</u> Glucose > 200 mg/dL HGBA1C $\geq 7.0\%$ x 2	Use of the following treatments for at least 30 continuous days: insulin, Glucotrol, Glucovance, Glucophage, or other antidiabetic.	Any two of the following are required for a diabetes determination. : diagnosis, 2 non-fasting or 1 fasting lab, or treatment,

Condition	Diagnoses	Labs / Measurements	Treatments / Procedures	Comments
3. Hypertension	Hypertension	SBP $\geq$ 140 or DBP $\geq$ 90 on at least 2 occasions (no timeframe required)	Use of antihypertensive medications Corgard, Inderal, Tenormin, Vasotec, Altace, Verapamil, Hydrochlorothiazide, Accupril, Aceon, Aldactazide, Aldactone, Aldoclor, Aldomet, Aldoril, Calan, Capoten, Levatol, Cardizem, Catapres, Lopressor, Lotensin, Norvasc, Plendil, Zestril, Ziac, Nifedipine, other hypertensive medication.	Any two of the following are required for a hypertension determination. : diagnosis, 2 consecutive high blood pressures, or treatment, Only medications that are very specific for hypertension (dx-tx linkages reviewed) were included
4. Dyslipidemia	hypercholesterolemia, hyperlipidemia, hypertriglyceridemia	Fasting labs (require only one). All units are mg/dL Total Cholesterol $\geq$ 240 LDL $\geq$ 160 HDL $<$ 40 triglycerides $>$ 200 Non-fasting labs (require only one) Total Cholesterol $\geq$ 240 HDL $<$ 40	Use of antilipemics: Lipitor, Lopid, Tricor, Lescol, Pravachol, Mevacor, Zocor, Cholestyramine, Atromid S, Baycol, Niaspan, Crestor, Zetia, Vytorin, Advicor, Lovaza, Caduet or other antilipemics. Vitamins/supplements/other alternate therapy if “omega”, “fish”, or “omacor” are also listed in the additional description variable.	Any two of the following are required for a dyslipidemia determination. : diagnosis, 1 fasting/non-fasting lab, or treatment, (Vitamins & Other alternative therapy must also be supported by an abnormal lab)

Condition	Diagnoses	Labs / Measurements	Treatments / Procedures	Comments
6. Viral hepatitis B and C	Hepatitis C, Chronic Hepatitis B, Hepatitis B, Hepatitis B unspecified, Hepatitis B with delta virus.	Hep C antibody, Hep C viral load, Hep B surface antigen, Hep BE Antigen, Hep B viral load, Hep B core Ag, Hep C genotype, Hep B core Ab.	N/A	Diagnosis or lab alone can put patient into this category
7. Chronic Kidney Disease	renal failure, end-stage renal disease, glomerulonephritis.	Consecutive GFR's < 60 over a period of at least 3 months Urine Microalbumin Spot > 30 µg/mL: consecutive measurements > 30 over a period of at least 3 months	Dialysis	We excluded using the diagnosis code renal insufficiency because it was considered insufficiently specific
8. Cancers (non-AIDS defining)	Hodgkins, skin, liver, lung, bone, brain, breast, ovarian, prostate, testicular, anal/rectal, colon, thyroid, esophageal, renal, pancreatic, leukemia, stomach/GI, or other cancer.	N/A	N/A	AIDS-defining cancers excluded: Kaposi's sarcoma, cervical cancer, non-Hodgkins lymphoma, CNS lymphoma, immunoblastic lymphoma
9. Degenerative joint disease or fracture in prior five years	Fracture, degenerative joint disease	N/A	N/A	Based on diagnosis alone

Condition	Diagnoses	Labs / Measurements	Treatments / Procedures	Comments
10. Psychiatric illness including depression	Dementia, myelopathy, HIV encephalopathy, progressive multifocal leukoencephalopathy, seizures, other neuro/psych: HIV associated, other neuro/psych: not HIV associated focal neurologic deficit, anxiety, depression, psychosis/schizophrenia, meningitis, cerebral atrophy, other neuro, biochemical/psychologic/bipolar disorder, sciatica, suicide attempt/death/ideation, tremors (drug-related), tremors (non-drug related), myoclonus, alcohol/drug induced encephalopathy, other encephalopathy, varicella encephalitis, mental retardation, Parkinson's Disease, mania, radiculopathy, encephalitis, CNS tumor, CNS abscess, cerebral neural cysterosis, ETOH dependence, Bell's palsy, traumatic brain hemorrhage, chronic mental illness, trigeminal neuralgia, Alzheimer's disease	N/A	N/A	Based on diagnosis alone
11. Chronic anemia	Anemia	N/A	N/A	Based on diagnosis alone

Abbreviations: CNS: Central Nervous System; DBP: Diastolic Blood Pressure; ETOH: Ethyl Alcohol; GFR: Glomerular filtration rate; HDL: High Density Lipoprotein; Hep: Hepatitis; HGBA1C: Hemoglobin A1c; LDL: Low Density Lipoprotein; SBP: Systolic Blood Pressure.

Supplemental Figure 1: Patient selection flowchart, the HIV Outpatient Study, 1997-2015 United States

Appendix B: Unadjusted outcome prevalence by age strata, the HIV Outpatient Study, 1997-2015 United States (N=1,540)

Outcomes	Age at last observation* (years)					P-value for trend‡
	18-40 (N=180)	41-50 (N=502)	51-60 (N=560)	≥ 61 (N=298)	Overall (N=1,540)	
	n (%)	n (%)	n (%)	n (%)	n (%)	
Cardiovascular disease	20 (11.1)	75 (14.9)	148 (26.4)	122 (40.9)	365 (23.7)	< 0.001
Cancer †	2 (1.1)	34 (6.8)	50 (8.9)	53 (17.8)	139 (9.0)	< 0.001
Hypertension	31 (17.2)	164 (32.7)	238 (42.5)	189 (63.4)	622 (40.4)	< 0.001
Diabetes	10 (5.6)	35 (7.0)	92 (16.4)	63 (21.1)	200 (13.0)	< 0.001
Dyslipidemia	42 (23.3)	182 (36.3)	306 (54.6)	178 (59.7)	708 (46.0)	< 0.001
Chronic kidney disease	9 (5.0)	76 (15.1)	179 (32.0)	137 (46.0)	401 (26.0)	< 0.001
Degenerative joint disease/fracture in prior 5 years	9 (5.0)	56 (11.2)	96 (17.1)	75 (25.2)	236 (15.3)	< 0.001
Psychiatric illness, including depression	88 (48.9)	267 (53.2)	310 (55.4)	169 (56.7)	834 (54.2)	0.073
Chronic hepatitis-B	10 (5.6)	49 (9.8)	60 (10.7)	29 (9.7)	148 (9.6)	0.130
Chronic hepatitis-C	9 (5.0)	76 (15.1)	111 (19.8)	74 (24.8)	270 (17.5)	< 0.001
Chronic anemia	17 (9.4)	50 (10.0)	109 (19.5)	66 (22.1)	242 (15.7)	< 0.001

*Earliest of death, last contact with HIV provider, or June 30, 2015.

†Excluding skin cancers but including malignant melanoma.

‡Cochran-Armitage test for trend

Supplemental Figure 2: Number of age-related chronic comorbidities stratified by sociodemographic factors, by age category at the end of observation, the HIV Outpatient Study, 1997-2015 United States (N=1,540)

Abbreviations: HRH, high risk heterosexual; IDU, injection drug use; MSM, men who have sex with men. Numerical values provided in Appendix C.

Appendix C: Mean number of comorbidities per participant stratified by age, race/ethnicity, sex, HIV risk and payor, the HIV Outpatient Study, 1997-2015 United States (N=1,540).

Demographic Characteristics	Age at last observation* (years)				
	Overall	18-40	41-50	51-60	≥ 61
	(N=1,540)	(N=180)	(N=502)	(N=560)	(N=298)
Overall	2.70	1.37	2.12	3.03	3.88
Race/ethnicity					
Black non-Hispanic/Latino	2.98	1.18	2.20	3.49	4.67
All other	2.60	1.46	2.09	2.86	3.62
Sex at birth					
Female	3.06	1.49	2.67	3.63	4.09
Male	2.62	1.34	1.98	2.90	3.84
HIV risk					
MSM	2.36	1.27	1.85	2.72	3.35
Heterosexual	2.99	1.51	2.49	3.29	4.25
PWID	4.30	2.00	3.43	4.30	5.24
Payor					
Private	2.12	1.18	1.75	2.49	3.15
Public	3.59	1.78	2.93	3.82	4.39

Abbreviation: MSM, men who have sex with men; PWID, persons who inject drugs.

*Earliest of death, last contact with HIV provider, or June 30, 2015.

Supplemental Figure 3: Multimorbidity of three of the most prevalent age-related chronic comorbidities, the HIV Outpatient Study, 1997-2015 United States (N=1,540)

Supplemental Table 1: Univariate logistic regression analyses of factors associated with comorbid outcomes, the HIV Outpatient Study, 1997-2015 United States (N=1,540).

Demographic characteristics at observation end	Comorbidities: Odds ratio (95% Confidence Interval)					
	Anemia (n=242)	Psychiatric conditions (n=834)	Hypertension (n=986)	Diabetes (n=302)	Chronic kidney disease (n=401)	Cardiovascular disease (n=365)
Age in years						
≤ 30	referent*	referent	referent	referent*	referent*	referent*
31-40	referent*	0.65 (0.27-1.54)	1.43 (0.58-3.54)	referent*	referent*	referent*
41-50	1.06 (0.60-1.89)	0.81 (0.35-1.86)	2.37 (0.99-5.63)	1.75 (0.98-3.15)	3.39 (1.66-6.92)	1.41 (0.83-2.38)
51-60	2.32 (1.35-3.98)	0.89 (0.39-2.03)	4.75 (1.99-11.31)	3.33 (1.89-5.84)	8.93 (4.46-17.85)	2.87 (1.74-4.74)
≥ 61 years	2.73 (1.54-4.82)	0.94 (0.40-2.18)	9.69 (3.94-23.84)	4.61 (2.57-8.27)	16.17 (7.96-32.81)	5.55 (3.30-9.32)
Sex						
Women	4.22 (3.14-5.69)	1.86 (1.42-2.43)	0.81 (0.63-1.05)	1.55 (1.15-2.09)	1.08 (0.81-1.44)	0.94 (0.70-1.28)
Men	referent	referent	referent	referent	referent	referent
Race/ethnicity						
Non-Hispanic/Latino black	3.71 (2.79-4.93)	0.99 (0.79-1.24)	1.48 (1.16-1.89)	1.54 (1.17-2.02)	0.66 (0.50-0.87)	1.05 (0.81-1.37)
All other	referent	referent	referent	referent	referent	referent
Payor						
Public or no insurance	4.11 (3.03-5.58)	2.88 (2.33-3.55)	2.08 (1.68-2.58)	2.51 (1.94-3.26)	1.93 (1.53-2.43)	1.75 (1.38-2.21)
Private insurance	referent	referent	referent	referent	referent	referent

Body Mass Index						
≥ 30 (kg/m ²)	1.38 (1.02-1.88)	0.95 (0.75-1.20)	2.15 (1.64-2.81)	2.25 (1.72-2.95)	0.75 (0.57-0.99)	1.30 (0.99-1.69)
< 30 (kg/m ²)	referent	referent	referent	referent	referent	referent
Current or prior smoker						
Yes	1.57 (1.19-2.07)	1.75 (1.43-2.14)	1.24 (1.01-1.53)	1.44 (1.12-1.86)	0.81 (0.64-1.02)	1.32 (1.04-1.67)
No	referent	referent	referent	referent	referent	referent
CD4+ cell count (cells/mm ³), nadir						
< 50	8.92 (3.51-22.68)	1.09 (0.72-1.65)	1.68 (1.08-2.62)	1.94 (1.10-3.43)	1.94 (1.16-3.24)	1.41 (0.85-2.32)
50-199	6.20 (2.46-15.62)	1.19 (0.81-1.77)	1.34 (0.89-2.01)	1.72 (0.99-2.97)	2.01 (1.23-3.27)	1.51 (0.94-2.42)
200-349	3.45 (1.35-8.82)	1.16 (0.78-1.73)	0.83 (0.56-1.25)	1.23 (0.70-2.14)	1.16 (0.70-1.91)	0.92 (0.57-1.50)
350-499	2.15 (0.79-5.85)	1.18 (0.77-1.79)	0.91 (0.59-1.40)	1.38 (0.76-2.48)	1.29 (0.76-2.20)	0.89 (0.53-1.50)
≥ 500	referent	referent	referent	referent	referent	referent
Years follow-up	1.06 (1.03-1.09)	1.02 (0.99-1.04)	1.07 (1.05-1.10)	1.10 (1.06-1.13)	1.09 (1.06-1.12)	1.09 (1.06-1.12)
Calendar period of observation end						
2002-2006	0.58 (0.32-1.06)	0.66 (0.45-0.96)	0.69 (0.47-1.01)	0.72 (0.44-1.18)	0.46 (0.28-0.76)	0.38 (0.22-0.67)
2007-2011	0.81 (0.51-1.28)	1.03 (0.75-1.42)	0.71 (0.51-0.98)	0.66 (0.43-1.02)	0.59 (0.40-0.87)	0.83 (0.57-1.21)
2012-2014	1.05 (0.75-1.47)	0.93 (0.72-1.20)	0.79 (0.60-1.02)	0.78 (0.56-1.08)	0.87 (0.65-1.16)	0.83 (0.62-1.12)
2015	referent	referent	referent	referent	referent	referent

Demographic characteristics at observation end	Comorbidities: Odds ratio (95% Confidence Interval)				
	Dyslipidemia (n=989)	Cancer (n=139)	Degenerative joint disease/fracture (n=171)	HBV, chronic (n=148)	HCV, chronic (n=270)
Age in years					
≤ 30	referent	referent*	referent*	referent*	referent*
31-40	1.63 (0.66-4.03)	referent*	referent*	referent*	referent*
41-50	2.48 (1.04-5.91)	6.47 (1.54-27.19)	2.04 (0.84-4.95)	1.84 (0.91-3.71)	3.39 (1.66-6.92)
51-60	4.91 (2.06-11.71)	8.73 (2.10-36.23)	4.55 (1.95-10.64)	2.04 (1.02-4.07)	4.70 (2.33-9.48)
≥ 61 years	7.46 (3.05-18.22)	19.25 (4.63-80.05)	6.71 (2.83-15.93)	1.83 (0.87-3.86)	6.28 (3.06-12.90)
Sex					
Women	0.63 (0.49-0.81)	0.69 (0.43-1.14)	1.40 (0.96-2.04)	0.85 (0.54-1.34)	1.64 (1.21-2.24)
Men	referent	referent	referent	referent	referent
Race/ethnicity					
Non-Hispanic/Latino black	0.56 (0.45-0.71)	1.06 (0.71-1.56)	1.14 (0.80-1.62)	2.20 (1.55-3.11)	1.89 (1.43-2.50)
All other	referent	referent	referent	referent	referent
Payor					
Public or no insurance	1.03 (0.83-1.27)	1.19 (0.84-1.68)	2.64 (1.89-3.69)	1.54 (1.09-2.16)	3.19 (2.41-4.22)
Private insurance	referent	referent	referent	referent	referent
Body Mass Index					
≥ 30 (kg/m ²)	1.62 (1.25-2.10)	0.72 (0.46-1.12)	1.13 (0.79-1.63)	1.08 (0.73-1.60)	0.79 (0.57-1.09)

< 30 (kg/m ²)	referent	referent	referent	referent	referent
Current or prior smoker					
Yes	1.02 (0.83-1.25)	1.23 (0.87-1.74)	1.65 (1.19-2.28)	1.79 (1.26-2.53)	1.93 (1.47-2.53)
No	referent	referent	referent	referent	referent
CD4+ cell count (cells/mm ³), nadir					
< 50	0.91 (0.59-1.42)	4.01 (1.54-10.44)	0.88 (0.45-1.70)	3.77 (1.45-9.84)	2.59 (1.27-5.29)
50-199	0.98 (0.65-1.49)	3.35 (1.31-8.57)	0.94 (0.51-1.74)	2.86 (1.10-7.34)	3.32 (1.67-6.57)
200-349	0.70 (0.46-1.06)	1.58 (0.59-4.20)	0.92 (0.50-1.71)	2.80 (1.09-7.20)	2.29 (1.14-4.58)
350-499	0.96 (0.61-1.51)	1.61 (0.58-4.49)	1.02 (0.53-1.96)	1.61 (0.58-4.48)	2.33 (1.13-4.80)
≥ 500	referent	referent	referent	referent	referent
Years follow-up	1.13 (1.10-1.16)	1.04 (0.99-1.08)	1.07 (1.03-1.11)	1.04 (1.00-1.08)	1.02 (0.99-1.05)
Calendar period of observation end					
2002-2006	0.47 (0.32-0.68)	1.74 (0.99-3.06)	0.25 (0.10-0.63)	0.97 (0.50-1.87)	1.52 (0.97-2.36)
2007-2011	0.58 (0.42-0.81)	1.47 (0.88-2.46)	0.32 (0.16-0.65)	1.33 (0.80-2.22)	1.05 (0.69-1.59)
2012-2014	0.66 (0.51-0.86)	1.03 (0.65-1.63)	0.66 (0.44-1.00)	1.24 (0.82-1.89)	0.98 (0.70-1.38)
2015	referent	referent	referent	referent	referent

Notes: There were < 5 participants 30 years or younger with anemia, diabetes, CKD, CVD, cancer, joint disease, HBV and HCV, respectively, so the lowest two age categories were combined.

Supplemental Table 2: Full multivariable logistic regression analyses of factors associated with comorbid outcomes, the HIV Outpatient Study, 1997-2015 United States (N=1,540).

Demographic Characteristics at observation end	Comorbidities: Odds ratio (95% Confidence Interval)					
	Anemia (n=242)	Psychiatric conditions (n=834)	Hypertension (n=986)	Diabetes (n=302)	Chronic kidney disease (n=401)	Cardiovascular disease (n=365)
Age in years						
≤ 30	referent*	referent	referent	referent*	referent*	referent*
31-40	referent*	0.83 (0.33-2.10)	1.43 (0.56-3.67)	referent*	referent*	referent*
41-50	0.94 (0.50-1.78)	0.97 (0.40-2.36)	2.16 (0.88-5.35)	1.43 (0.78-2.63)	3.08 (1.50-6.35)	1.19 (0.70-2.04)
51-60	1.98 (1.07-3.67)	0.97 (0.40-2.36)	4.03 (1.62-10.03)	2.39 (1.32-4.35)	7.69 (3.78-15.65)	2.11 (1.25-3.56)
≥ 61 years	2.06 (1.06-4.02)	0.83 (0.33-2.07)	7.72 (3.00-20.00)	3.07 (1.63-5.78)	12.01 (5.75-25.08)	3.79 (2.17-6.62)
Sex						
Women	3.09 (2.17-4.39)	1.54 (1.14-2.08)	0.51 (0.38-0.70)	1.07 (0.76-1.51)	1.27 (0.91-1.78)	0.82 (0.59-1.16)
Men	referent	referent	referent	referent	referent	referent
Race/ethnicity						
Non-Hispanic/Latino black	2.66 (1.91-3.71)	0.66 (0.51-0.86)	1.38 (1.04-1.84)	1.19 (0.87-1.63)	0.56 (0.41-0.77)	0.96 (0.71-1.29)
All other	referent	referent	referent	referent	referent	referent
Payor						
Public or no insurance	2.17 (1.54-3.04)	2.92 (2.30-3.70)	1.75 (1.35-2.25)	1.96 (1.46-2.62)	1.70 (1.30-2.22)	1.37 (1.05-1.80)

Private insurance	referent	referent	referent	referent	referent	Referent
Body Mass Index						
≥ 30 (kg/m ²)	0.96 (0.67-1.38)	0.86 (0.67-1.12)	2.43 (1.82-3.26)	2.41 (1.79-3.25)	0.82 (0.60-1.11)	1.47 (1.10-1.96)
< 30 (kg/m ²)	referent	referent	referent	referent	referent	Referent
Current or prior smoker						
Yes	1.15 (0.84-1.57)	1.55 (1.25-1.91)	1.06 (0.84-1.33)	1.23 (0.94-1.62)	0.64 (0.50-0.83)	1.19 (0.92-1.52)
No	referent	referent	referent	referent	referent	referent
CD4+ cell count (cells/mm ³), nadir						
< 50	7.35 (2.76-19.56)	0.82 (0.53-1.29)	1.18 (0.73-1.92)	1.41 (0.77-2.59)	1.57 (0.90-2.74)	1.09 (0.64-1.85)
50-199	5.80 (2.20-15.31)	1.00 (0.66-1.52)	0.97 (0.62-1.51)	1.37 (0.76-2.45)	1.64 (0.97-2.78)	1.18 (0.72-1.94)
200-349	3.98 (1.49-10.65)	1.14 (0.75-1.73)	0.74 (0.48-1.14)	1.20 (0.66-2.17)	1.13 (0.66-1.93)	0.86 (0.52-1.43)
350-499	2.52 (0.88-7.16)	1.16 (0.75-1.73)	0.80 (0.50-1.28)	1.38 (0.74-2.57)	1.30 (0.73-2.29)	0.83 (0.48-1.44)
≥ 500	referent	referent	referent	referent	referent	referent
Years follow-up	1.05 (1.01-1.10)	1.00 (0.98-1.03)	1.03 (1.00-1.06)	1.08 (1.04-1.12)	1.02 (0.98-1.05)	1.04 (1.01-1.08)
Calendar period of observation end						
2002-2006	1.21 (0.61-2.43)	0.73 (0.48-1.11)	1.21 (0.78-1.87)	1.69 (0.96-2.97)	0.63 (0.36-1.11)	0.61 (0.33-1.12)
2007-2011	1.20 (0.71-2.02)	1.19 (0.84-1.68)	0.94 (0.65-1.34)	1.02 (0.64-1.64)	0.73 (0.47-1.13)	1.12 (0.74-1.68)
2012-2014	1.28 (0.87-1.88)	0.91 (0.69-1.20)	0.84 (0.63-1.12)	0.91 (0.64-1.29)	0.86 (0.63-1.18)	0.88 (0.64-1.21)
2015	referent	referent	referent	referent	referent	referent

Demographic Characteristics at observation end	Comorbidities: Odds ratio (95% Confidence Interval)				
	Dyslipidemia (n=989)	Cancer (n=139)	Degenerative joint disease/fracture (n=171)	HBV, chronic (n=148)	HCV, chronic (n=270)
Age in years					
≤ 30	referent	referent*	referent*	referent*	referent*
31-40	1.17 (0.46-2.99)	referent*	referent*	referent*	referent*
41-50	1.49 (0.61-3.69)	6.10 (1.44-25.86)	1.95 (0.79-4.80)	1.62 (0.79-3.34)	3.43 (1.65-7.12)
51-60	2.65 (1.07-6.59)	8.21 (1.94-34.70)	3.94 (1.64-9.46)	1.52 (0.73-3.15)	4.56 (2.20-9.47)
≥ 61 years	3.83 (1.49-9.84)	17.34 (4.04-74.37)	5.19 (2.09-12.87)	1.17 (0.52-2.62)	5.05 (2.35-10.85)
Sex					
Women	0.63 (0.46-0.85)	0.75 (0.44-1.29)	1.11 (0.73-1.70)	0.56 (0.34-0.92)	1.24 (0.87-1.76)
Men	referent	Referent	referent	referent	referent
Race/ethnicity					
Non-Hispanic/Latino black	0.54 (0.41-0.71)	1.21 (0.78-1.87)	0.88 (0.59-1.32)	2.47 (1.68-3.63)	1.63 (1.19-2.24)
All other	referent	Referent	referent	referent	referent
Payor					
Public or no insurance	1.00 (0.78-1.29)	0.87 (0.58-1.29)	2.18 (1.50-3.16)	1.25 (0.85-1.82)	2.59 (1.89-3.54)
Private insurance	referent	Referent	referent	referent	referent

Body Mass Index					
≥ 30 (kg/m ²)	2.13 (1.60-2.84)	0.83 (0.52-1.32)	1.13 (0.76-1.67)	1.01 (0.66-1.53)	0.70 (0.49-0.99)
< 30 (kg/m ²)	referent	Referent	referent	referent	referent
Current or prior smoker					
Yes	0.99 (0.79-1.24)	1.12 (0.78-1.62)	1.39 (0.99-1.96)	1.68 (1.17-2.41)	1.48 (1.11-1.96)
No	referent	Referent	referent	referent	referent
CD4+ cell count (cells/mm ³), nadir					
< 50	0.81 (0.50-1.31)	3.31 (1.24-8.78)	0.66 (0.33-1.32)	2.86 (1.07-7.61)	1.64 (0.78-3.45)
50-199	0.84 (0.53-1.32)	2.46 (0.94-6.43)	0.72 (0.37-1.37)	2.23 (0.85-5.85)	2.22 (1.09-4.52)
200-349	0.65 (0.42-1.01)	1.39 (0.52-3.75)	0.91 (0.48-1.74)	2.50 (0.96-6.54)	2.07 (1.01-4.23)
350-499	0.94 (0.58-1.52)	1.41 (0.50-3.99)	1.02 (0.51-2.03)	1.37 (0.48-3.88)	2.12 (1.00-4.49)
≥ 500	referent	Referent	referent	referent	referent
Years follow-up	1.09 (1.03-1.12)	1.02 (0.97-1.07)	1.00 (0.96-1.05)	1.06 (1.01-1.11)	1.01 (0.98-1.05)
Calendar period of observation end					
2002-2006	0.82 (0.53-1.25)	2.30 (1.18-4.49)	0.36 (0.14-0.94)	1.51 (0.72-3.16)	2.30 (1.36-3.91)
2007-2011	0.76 (0.54-1.08)	1.71 (0.98-2.99)	0.42 (0.21-0.86)	1.60 (0.93-2.77)	1.35 (0.85-2.14)
2012-2014	0.71 (0.54-0.95)	0.99 (0.61-1.60)	0.69 (0.45-1.07)	1.32 (0.85-2.04)	1.04 (0.73-1.50)
2015	referent	Referent	referent	referent	referent

*There were < 5 participants 30 years or younger with anemia, diabetes, CKD, CVD, cancer, joint disease, HBV and HCV, respectively, so the lowest two age categories were combined