Supplementary Online Content

Hayfron-Benjamin CF, van den Born BJ, Amoah AGB, et al. Associations of serum uric acid levels with macrovascular and renal microvascular dysfunction among individuals from Sub-Saharan Africa. *JAMA Netw Open*. 2021;4(10):e2128985. doi:10.1001/jamanetworkopen.2021.28985

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

eTable 1: Comparison of baseline characteristics of individuals included and excluded from the current analysis†.

	Included	Excluded	p-value
	4919	792	
Age, y	46.26 (±11.08)	47.81 (±11.12)	<0.001
Female sex (%)			0.502
Male	1872 (38.1%)	291 (36.7%)	
Female	3047 (61.9%)	501 (63.3%)	
Higher education (%)	507 (10.3%)	72 (9.1%)	0.311
Site of residence (%)			<0.001
Ghana	2338 (47.5%)	194 (24.5%)	
Europe	2581(52.5%)	598 (75.5%)	
Current smokers (%)	146 (3.0%)	12 (2.9%)	0.959
Alcohol intake, g/day*	0.14 (2.02)	0.12 (1.83)	0.847
WHR	0.90 (±0.07)	0.90 (±0.09)	0.116
BMI, kg/m^2	27.05 (±5.45)	28.20 (±5.46)	<0.001
Systolic BP, mmHg	130.09 (±19.59)	134.70 (±19.21)	<0.001
Diastolic BP, mmHg	81.40 (±11.98)	83.11 (±11.56)	<0.001
Hypertension (%)	2247 (45.7%)	421 (53.2%)	<0.001
Diabetes (%)	557 (11.3%)	71 (9.0%)	0.050
HbA_{1c}, mmol/mol	38.34 (±12.32)	39.23 (±11.06)	0.072
Total cholesterol, mmol/l	4.98 (±1.13)	4.93 (±1.10)	0.283
Triglycerides, mmol/l	1.01 (±0.56)	0.97 (±0.47)	0.045
HDL-cholesterol, mmol/l	1.33 (±0.36)	1.32 (±0.35)	0.266
LDL-cholesterol, mmol/l	3.19 (±0.98)	3.18 (±0.94)	0.750
eGFR, ml/min/1.73m^2	95.14 (±19.95)	92.29 (±19.98)	0.001
hs-CRP, mg/L *	0.70 (2.30)	0.80 (2.63)	0.754

Data are mean (± standard deviation), median (interquartile range), or n (%).
Abbreviations: BMI = body mass index; BP = blood pressure, HbA1c = glycated hemoglobin; HDL = high density lipoprotein; hs-CRP = high sensitivity C-reactive protein, LDL = low density lipoprotein.
*Data presented as median (interquartile range).

†Individuals excluded from the current analyses were aged 25-75 years but had incomplete data on serum uric acid, microvascular, and macrovascular measurements.

eTable 2: Logistic regression models for CAD (based on a previous history of MI or use of the Rose Angina questionnaire alone) among individuals in the SUA quartiles (reference is SUA Q1)

	OR (95% CI), p-value			
	Model 1	Model 2	Model 3	Model 4
CAD based on a history of MI diagnosed by a doctor (n=4872)				
Q1 ((≤ 253.0 µmol/L)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)
Q2 (253.1-305.3 µmol/L)	0.78 (0.58-1.03)	0.81 (0.60-1.08)	0.80 (0.60-1.07)	0.88 (0.65-1.19)
Q3 (305-4-363.6 µmol/L)	0.67 (0.50-0.90)	0.75 (0.55-1.02)	0.74 (0.54-1.01)	0.98 (0.70-1.37)
Q4 (≥ 363.7 µmol/L)	0.61 (0.45-0.83)	0.74 (0.52-1.04)	0.71 (0.50-1.01)	1.11 (0.76-1.64)
p-value for trend	*0.007*	*0.204*	*0.167*	*0.634*
CAD based on ROSE angina questionnaire (n = 4919)				
Q1 ((≤ 253.0 µmol/L)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)	1.00 (Reference)
Q2 (253.1-305.3 µmol/L)	0.97 (0.75-1.26)	1.01 (0.77-1.31)	0.99 (0.76-1.29)	1.07 (0.81-1.41)
Q3 (305-4-363.6 µmol/L)	1.03 (0.79-1.33)	1.10 (0.84-1.45)	1.08 (0.82-1.42)	1.28 (0.95-1.73)
Q4 (≥ 363.7 µmol/L)	0.71 (0.54-0.94)	0.80 (0.59-1.09)	0.77 (0.56-1.06)	1.09 (0.77-1.55)
p-value for trend	*0.043*	*0.166*	*0.131*	*0.393*

Abbreviations: CAD = coronary artery disease; MI = myocardial infarction; SUA = serum uric acid.

eTable 3: Mediation effects of SBP, DBP, and HbA1c concentration on the association between SUA concentration and ACR Z-score for individuals not on antihypertensive therapy (n = 3894) or hypoglycemic medication (n=4693)

Mediator	Unadjusted Model			Fully Adjusted Model*		
	Total effect of SUA on ACR	Indirect effect(s) of SUA on ACR	% of effect via mediator	Total effect of SUA on ACR	Indirect effect(s) of SUA on ACR	% of effect via mediator
SBP	0.00037 (0.00001, 0.00073)	0.00036 (0.00014, 0.00067)	97.3%	0.00044 (-0.00010, 0.00098)	0.00017 (0.00004, 0.00036)	38.6%
DBP	0.00037 (0.00001, 0.00073)	0.00038 (0.00014, 0.00073)	102.7%	0.00044 (-0.00010, 0.00098)	0.00017 (0.00004, 0.00036)	38.6%
HBA1c	0.00078 (0.00043, 0.00113)	0.00005 (0.00000, 0.00011)	6.4%	0.00085 (0.00034, 0.00137)	-0.00003 (-0.00008, 0.00000)	-3.5%

Fully adjusted model: adjusted for age, sex, eGFR, site of residence, socioeconomic status, alcohol intake, smoking, diabetes, hypertension, WHR, and total cholesterol,

*Hypertension and diabetes were respectively excluded from the list of covariates when assessing the mediating roles of blood pressure (SBP or DBP) and HbA1c.

Abbreviations: ACR = albumin-creatinine ratio; DBP = diastolic blood pressure; HbA1c = glycated hemoglobin; SUA = serum uric acid; SBP = systolic blood pressure; WHR = waist to hip ratio.

eTable 4: Associations of Z-score SUA with albuminuria, PAD, and CAD in individuals in the fourth SUA quartile

	OR (95% CI), p-value			
	Model 1	Model 2	Model 3	Model 4
Albuminuria	1.31 (1.03-1.67), 0.030	1.35 (1.05-1.73), 0.019	1.12 (0.86-1.46), 0.407	0.99 (0.73-1.35), 0.954
PAD	0.83 (0.55-1.24), 0.366	0.86 (0.57-1.29), 0.466	0.89 (0.58-1.35), 0.573	1.01 (0.64-1.60), 0.965
CAD	0.80 (0.56-1.13), 0.206	0.82 (0.57-1.17), 0.269	0.74 (0.51-1.08), 0.120	0.89 (0.60-1.32), 0.573

Model 1, unadjusted for any covariate; model 2, adjusted for age and sex, model 3, additionally adjusted for eGFR; and model 4, further adjusted for the site of residence, socioeconomic status, alcohol consumption, smoking, diabetes, hypertension, waist-to-hip ratio, and total-cholesterol concentration,

Abbreviations: eGFR = estimated glomerular filtration rate; CAD = coronary artery disease; PAD = peripheral artery disease; SUA = serum uric acid.