

SUPPLEMENTARY MATERIALS

Supplemental Table 1. Hypertension incidence rates and incidence rate ratios per 100 person-years over 5 years of follow-up (2010-2015), by sociodemographic, health and behavioral factors among the full eligible sample.

Value	Events	PYRS	IR	95% CI		IRR	95% CI		p-value
				Lower	Upper		Lower	Upper	
Overall	193	3187	4.579	3.911	5.361				
Gender									
Male	74	1203	5.14	4.078	6.548	1			
Female	119	1984	4.408	3.641	5.369	0.858	0.632	1.163	0.323
Age groups									
40-49	56	1418	2.795	2.117	3.755	1			
50-59	47	727	5.092	3.731	7.069	1.821	1.191	2.786	0.006
60-69	42	514	5.478	3.876	7.848	1.96	1.25	3.073	0.003
70-79	28	316	6.244	4.127	9.655	2.233	1.347	3.704	0.002
80+	20	212	8.825	5.585	14.45	3.157	1.83	5.445	<0.001
Education									
None	85	1134	6.774	5.397	8.574	1			
Less than secondary	92	1258	6.158	4.919	7.769	0.909	0.658	1.257	0.563
Secondary or more	16	298	3.756	2.19	6.868	0.555	0.305	1.008	0.053
Union status									
Not in union	91	1508	4.237	3.38	5.357	1			
Formal/informal union	102	1679	4.928	3.984	6.144	1.163	0.849	1.593	0.347
SES ^a									
Low	68	1248	3.909	3.01	5.138	1			
Middle	64	975	5.612	4.325	7.372	1.436	0.986	2.089	0.059
High	60	946	4.464	3.362	6.007	1.142	0.772	1.69	0.507
Employment status									
Not employed	144	1970	6.057	5.062	7.284	1			
Employed	48	706	6.503	4.83	8.911	1.074	0.754	1.529	0.694
Smoking history									
Never	163	2573	4.638	3.92	5.514	1			
Prior	11	218	4.314	2.36	8.558	0.93	0.49	1.765	0.825
Current	19	396	3.89	2.441	6.48	0.839	0.506	1.391	0.496
Alcohol use									
Not in past 30 days	153	2546	4.522	3.805	5.401	1			
Less than weekly	10	227	3.557	1.875	7.414	0.787	0.399	1.549	0.488

Weekly	30	414	5.546	3.691	8.558	1.227	0.784	1.92	0.372
Physical activity ^b									
Low	20	199	6.424	3.801	11.185	1			
Moderate	71	913	6.323	4.899	8.246	0.984	0.548	1.769	0.958
High	100	2017	3.798	3.073	4.733	0.591	0.335	1.043	0.07
High waist circumference ^c									
No	104	2106	3.629	2.936	4.523	1			
Yes	78	974	5.796	4.544	7.455	1.597	1.151	2.215	0.005
Diabetes ^d									
No	186	3095	4.513	3.851	5.311	1			
Yes	6	81	6.868	2.92	18.668	1.522	0.64	3.621	0.342
High triglycerides ^e									
No	122	2269	4.084	3.367	4.989	1			
Yes	59	817	5.344	4.014	7.203	1.309	0.922	1.857	0.132
HIV and ART status									
Negative	155	1522	10.254	8.726	12.104	1			
Positive, not on ART	25	490	4.615	3.054	7.246	0.45	0.286	0.708	0.001
Positive, on ART	6	178	3.553	1.52	10.122	0.346	0.145	0.827	0.017

^a Based on a household asset index score.

^b Based on the International Physical Activity Questionnaire (IPAQ).

^c Greater than 102cm for men and 88cm for women.

^d Blood glucose greater than or equal to 11.1.

^e Greater than or equal to 1.7 mmol/l.

Supplemental Table 2. Multivariable Poisson regression of incident hypertension on sociodemographic, health and behavioral risk factors among the full eligible sample (n=721).

	aIRR	95% CI		p-value
		Lower	Upper	
Gender				
Male	1			
Female	0.783	0.489	1.253	0.307
Age groups				
40-49	1			
50-59	1.871	1.205	2.905	0.005
60-69	1.972	1.146	3.392	0.014
70-79	2.183	1.149	4.146	0.017
80+	2.86	1.305	6.265	0.009
Education				
None	1			
Less than secondary	0.947	0.647	1.387	0.781
Secondary or more	0.607	0.3	1.227	0.164
Union status				
Not in union	1			
Formal/informal union	0.972	0.678	1.392	0.876
SES ^a				
Low	1			
Middle	1.258	0.825	1.918	0.286
High	0.963	0.599	1.55	0.878
Employment status				
Not employed	1			
Employed	1.814	1.195	2.752	0.005
Smoking history				
Never	1			
Prior	0.802	0.381	1.688	0.562
Current	0.71	0.362	1.393	0.32
Alcohol use				
Not in past 30 days	1			
Less than weekly	0.86	0.415	1.779	0.684
Weekly	1.114	0.646	1.922	0.698
Physical activity ^b				
Low	1			
Moderate	0.906	0.495	1.656	0.748

High waist circumference ^c	0.639	0.342	1.195	0.161
No	1			
Yes	1.564	1.047	2.335	0.029
Diabetes ^d				
No	1			
Yes	1.047	0.438	2.506	0.917
High triglycerides ^e				
No	1			
Yes	1.126	0.776	1.633	0.532

^a Based on a household asset index score.

^b Based on the International Physical Activity Questionnaire (IPAQ).

^c Greater than 102cm for men and 88cm for women.

^d Blood glucose greater than or equal to 11.1.

^e Greater than or equal to 1.7 mmol/l.

Supplemental Table 3. Multivariable Poisson regression of incident hypertension on sociodemographic, health (using BMI instead of waist circumference) and behavioral risk factors, and HIV and ART status among those completing baseline and follow-up time points (n=579).

	aIRR	95% CI		p-value
		Lower	Upper	
Gender				
Male	1			
Female	0.911	0.595	1.396	0.669
Age groups				
40-49	1			
50-59	1.906	1.237	2.938	0.003
60-69	2.38	1.426	3.972	0.001
70-79	2.649	1.444	4.857	0.002
80+	2.335	1.055	5.168	0.036
Education				
None	1			
Less than secondary	1.128	0.775	1.642	0.53
Secondary or more	0.746	0.365	1.525	0.421
Union status				
Not in union	1			
Formal/informal union	0.971	0.685	1.376	0.867
SES^a				
Low	1			
Middle	0.927	0.619	1.389	0.714
High	0.778	0.498	1.215	0.269
Employment status				
Not employed	1			
Employed	1.526	1.014	2.295	0.043
Smoking history				
Never	1			
Prior	0.732	0.342	1.565	0.421
Current	0.716	0.372	1.378	0.317
Alcohol use				
Not in past 30 days	1			
Less than weekly	0.752	0.363	1.559	0.444
Weekly	1.037	0.628	1.711	0.887
Physical activity^b				

Low	1			
Moderate	0.721	0.419	1.242	0.239
High	0.506	0.289	0.886	0.017
Obesity ^c				
No	1			
Yes	1.902	1.315	2.751	0.001
Diabetes ^d				
No	1			
Yes	0.916	0.371	2.263	0.849
High triglycerides ^e				
No	1			
Yes	1.346	0.965	1.876	0.08
HIV and ART status				
Negative	1			
Positive, not on ART	0.504	0.315	0.809	0.004
Positive, on ART	0.507	0.221	1.165	0.11

^a Based on a household asset index score.

^b Based on the International Physical Activity Questionnaire (IPAQ).

^c Greater than or equal to 30 BMI.

^d Blood glucose greater than or equal to 11.1.

^e Greater than or equal to 1.7 mmol/l.

Supplemental Table 4. Multivariable Poisson regression of incident hypertension (based on BP threshold only) on sociodemographic, health and behavioral risk factors, and HIV and ART status among those completing baseline and follow-up time points (n=581).

	aIRR	95% CI		p-value
		Lower	Upper	
Gender				
Male	1			
Female	0.773	0.455	1.315	0.343
Age groups				
40-49	1			
50-59	1.902	1.17	3.093	0.01
60-69	2.06	1.166	3.641	0.013
70-79	1.432	0.658	3.117	0.366
80+	1.888	0.795	4.483	0.15
Education				
None	1			
Less than secondary	0.99	0.648	1.514	0.965
Secondary or more	0.772	0.363	1.644	0.502
Union status				
Not in union	1			
In union	0.8	0.54	1.185	0.266
SES ^a				
Low	1			
Middle	0.899	0.569	1.419	0.647
High	0.657	0.394	1.094	0.106
Employment status				
Not employed	1			
Employed	1.747	1.093	2.792	0.02
Smoking history				
Never	1			
Prior	0.612	0.237	1.581	0.311
Current	0.61	0.291	1.277	0.189
Alcohol use				
Not in past 30 days	1			
Less than weekly	0.738	0.326	1.672	0.467
Weekly	0.959	0.542	1.699	0.887
Physical activity ^b				
Low	1			
Moderate	0.973	0.5	1.894	0.936

High waist circumference ^c	0.669	0.33	1.355	0.264
No	1			
Yes	1.361	0.882	2.102	0.164
Diabetes ^d				
No	1			
Yes	0.341	0.05	2.309	0.27
High triglycerides ^e				
No	1			
Yes	1.19	0.792	1.789	0.402
HIV and ART status				
Negative	1			
Positive, not on ART	0.28	0.151	0.518	<0.001
Positive, on ART	0.313	0.108	0.908	0.033

^a Based on a household asset index score.

^b Based on the International Physical Activity Questionnaire (IPAQ).

^c Greater than 102cm for men and 88cm for women.

^d Blood glucose greater than or equal to 11.1.

^e Greater than or equal to 1.7 mmol/l.

Supplemental Table 5. Multivariable competing risk regression (Fine-Gray model) of incident hypertension on sociodemographic, health and behavioral risk factors among the full eligible sample (n=662).

	SHR	95% CI		p-value
		Lower	Upper	
Gender				
Male	1			
Female	0.835	0.526	1.326	0.445
Education				
None	1			
Less than secondary	1.1	0.766	1.58	0.607
Secondary or more	0.968	0.513	1.829	0.921
Union status				
Not in union	1			
Formal/informal union	1.067	0.759	1.5	0.708
SES ^a				
Low	1			
Middle	1.021	0.689	1.512	0.919
High	0.881	0.566	1.371	0.574
Employment status				
Not employed	1			
Employed	1.969	1.374	2.821	<0.001
Smoking history				
Never	1			
Prior	0.772	0.38	1.57	0.475
Current	0.73	0.367	1.451	0.369
Alcohol use				
Not in past 30 days	1			
Less than weekly	0.882	0.432	1.798	0.729
Weekly	0.899	0.506	1.597	0.716
Physical activity ^b				
Low	1			
Moderate	1.184	0.667	2.102	0.564
High	0.914	0.512	1.633	0.761
High waist circumference ^c				
No	1			
Yes	1.399	0.952	2.056	0.088
Diabetes ^d				

No	1			
Yes	1.399	0.677	2.887	0.364
High triglycerides ^c				
No	1			
Yes	1.111	0.778	1.585	0.563

^a Based on a household asset index score.

^b Based on the International Physical Activity Questionnaire (IPAQ).

^c Greater than 102cm for men and 88cm for women.

^d Blood glucose greater than or equal to 11.1.

^e Greater than or equal to 1.7 mmol/l.

Supplemental Table 6. Cause of death by broad disease category for the full eligible sample.

Cause group	N	%
HIV/AIDS and TB	20	28
Other infectious diseases	16	23
Noncommunicable diseases	34	48
External	1	1

Cause of death information from InterVA-4. Information on cause of death missing for 4 individuals.