

Table 1—Clinical and biological characteristics [means (standard deviation)] of the study population across place of residence, stratified on gender:

	Women				Men			
	Rural	Urban	France	P*	Rural	Urban	France	P*
N	362	472	2101		245	392	2084	
Age (years)	45.8 (12.9) ^a	36.8 (8.9) ^{a,b}	45.3 (9.7) ^b	0.001	45.7 (13.8) ^a	37.4 (9.0) ^{a,b}	45.2 (9.6) ^b	0.001
Weight (kg)	57.2 (9.2) ^{a,b}	67.6 (10.9) ^{a,c}	60.0 (9.3) ^{b,c}	0.001	63.7 (10.2) ^{a,b}	73.7 (11.9) ^{a,c}	74.9 (10.1) ^{b,c}	0.001
Height (cm)	160.5 (6.5) ^a	161.4 (5.7) ^{a,b}	160.0 (6.0) ^b	0.004	170.4 (7.6) ^{a,b}	172.4 (6.9) ^a	173.1 (6.4) ^b	0.001
Body mass Index (kg/m ²)	22.1 (3.0) ^{a,b}	26.0 (3.9) ^{a,c}	23.4 (3.5) ^{b,c}	0.001	21.8 (2.7) ^{a,b}	24.8 (3.5) ^a	25.0 (3.0) ^b	0.001
Waist circumference (cm)	82.0 (8.5) ^{a,b}	83.2 (8.9) ^{a,c}	75.6 (9.3) ^{b,c}	0.001	80.7 (8.4) ^{a,b}	81.3 (8.6) ^{a,c}	88.4 (8.8) ^{b,c}	0.001
Hip circumference (cm)	91.5 (8.1) ^{a,b}	102.7 (8.4) ^{a,c}	96.3 (7.6) ^{b,c}	0.001	89.7 (7.1) ^{a,b}	98.1 (7.7) ^{a,c}	96.9 (6.0) ^{b,c}	0.001
Waist to hip ratio	0.90 (0.1) ^{a,b}	0.78 (0.06) ^a	0.78 (0.06) ^b	0.001	0.90 (0.09) ^a	0.85 (0.05) ^{a,b}	0.91 (0.06) ^b	0.001
Systolic blood pressure (mmHg)	114.5 (19.0) ^{a,b}	111.8 (12.9) ^{a,c}	124.1 (14.3) ^{b,c}	0.001	120.1 (16.7) ^a	120.2 (16.1) ^b	131.0 (13.4) ^{a,b}	0.001
Diastolic blood pressure (mmHg)	70.8 (11.5) ^{a,b}	73.2 (10.0) ^{a,c}	76.2 (8.9) ^{b,c}	0.001	73.3 (11.2) ^{a,b}	79.3 (11.0) ^{a,c}	80.8 (9.0) ^{b,c}	0.001
Mean arterial pressure (mmHg)	85.4 (13.0) ^a	86.0 (10.2) ^b	92.2 (10.0) ^{a,b}	0.001	88.9 (11.9) ^{a,b}	93.0 (11.9) ^{a,c}	97.5 (9.6) ^{b,c}	0.001
Fasting plasma glucose (mmol/l)	4.4 (1.1) ^a	4.2 (0.8) ^b	5.0 (0.7) ^{a,b}	0.001	4.1 (1.5) ^a	4.2 (1.4) ^b	5.4 (0.7) ^{a,b}	0.001
Fasting triglycerides (mmol/l)	0.5 (1.4) ^{a,b}	0.4 (1.5) ^{a,c}	0.8 (1.6) ^{b,c}	0.001	0.5 (1.5) ^a	0.5 (1.6) ^b	1.1 (1.7) ^{a,b}	0.001
Fasting total cholesterol (mmol/l)	2.6 (0.7) ^{a,b}	3.6 (0.8) ^{a,c}	5.6 (1.0) ^{b,c}	0.001	2.5 (0.6) ^{a,b}	3.4 (0.9) ^{a,c}	5.8 (1.0) ^{b,c}	0.001
HOMA-IR	0.5 (2.2) ^{a,b}	1.0 (2.0) ^{a,c}	1.2 (1.7) ^{b,c}	0.001	0.3 (2.0) ^{a,b}	0.8 (2.2) ^{a,c}	1.3 (1.8) ^{b,c}	0.001

HOMA-IR and fasting triglycerides were logarithmically transformed before computing the statistical tests.

^{a,b,c}: in each gender, pairs with the same alphabetic letter in each gender are significantly different with significance level $p < 0.01$.

* P for ANOVA.

Table 2—Changes in obesity related abnormalities (beta coefficients, univariate analysis) for a 5 cm increase in waist circumference, by place of residence and gender:

	Rural Cameroon	Urban Cameroon	France	P for difference of slopes
Women				
Systolic blood pressure (mmHg)	1.65***	2.62***	2.43***	0.2
Diastolic blood pressure (mmHg)	0.63**	1.95***C	1.28***Y	0.001
Mean arterial pressure (mmHg)	0.97**	2.17***	1.65***	0.10
HOMA-IR	0.05**	0.11***A	0.14***X	0.001
Fasting plasma glucose (mmol/l)	-0.02	0.05*	0.09***Y	0.001
Fasting cholesterol (mmol/l)	0.04	0.07**	0.11***Z	0.04
Fasting triglycerides (mmol/l)	0.01	0.06***B	0.11***Z	0.001
Men				
Systolic blood pressure (mmHg)	2.95***	3.61***	2.39***Y	0.01
Diastolic blood pressure (mmHg)	1.44***	2.56***C	1.49***Y	0.001
Mean arterial pressure (mmHg)	1.94***	2.91***	1.79***	0.08
HOMA-IR	0.14***	0.18***	0.17***	0.2
Fasting plasma glucose (mmol/l)	-0.01	0.09***B	0.10***	0.01
Fasting cholesterol (mmol/l)	0.06**	0.10***	0.13***Z	0.001
Fasting triglycerides (mmol/l)	0.03*	0.09***B	0.13***Z	0.001

Results are from regression models for each of SBP, DBP, HOMA-IR, logarithm of fasting plasma glucose, total cholesterol and logarithm fasting triglycerides with waist circumference.

For the significance of each slope compared to zero slope in each model, * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

For the comparison of slopes between urban and rural Cameroon, A = $p < 0.05$; B = $p < 0.01$; C = $p < 0.001$.

For the comparison of slopes between urban Cameroon and France, X = $p < 0.05$; Y = $p < 0.01$; Z = $p < 0.001$.

Table 3—Changes in obesity related abnormalities (beta coefficients, univariate analysis) for a 0.10 increase in waist to hip ratio, by place of residence and gender:

	Rural Cameroon	Urban Cameroon	France	P for difference of slopes
Women				
Systolic blood pressure (mmHg)	0.40	0.48***C	0.56***	0.001
Diastolic blood pressure (mmHg)	-0.43	0.34***C	0.29***	0.001
Mean arterial pressure (mmHg)	-0.15	0.39***C	0.38***	0.001
HOMA-IR	0.06	0.19	0.47***Y	0.001
Fasting plasma glucose (mmol/l)	0.003	0.02	0.040***	0.001
Fasting cholesterol (mmol/l)	-0.04	0.007	0.28***Z	0.001
Fasting triglycerides (mmol/l)	0.03	0.16***C	0.29***Z	0.001
Men				
Systolic blood pressure (mmHg)	0.21	0.72***B	0.55***	0.002
Diastolic blood pressure (mmHg)	-0.55	0.41***C	0.36***	0.001
Mean arterial pressure (mmHg)	0.32	0.51***C	0.42***	0.001
HOMA-IR	0.07	0.67**C	0.65***	0.001
Fasting plasma glucose (mmol/l)	0.003	0.06**B	0.04***	0.001
Fasting cholesterol (mmol/l)	0.02	0.17	0.39***X	0.001
Fasting triglycerides (mmol/l)	0.05*	0.27***C	0.32***	0.001

Results are from regression models for each of SBP, DBP, HOMA-IR, logarithm of fasting plasma glucose, total cholesterol and logarithm fasting triglycerides with waist circumference.

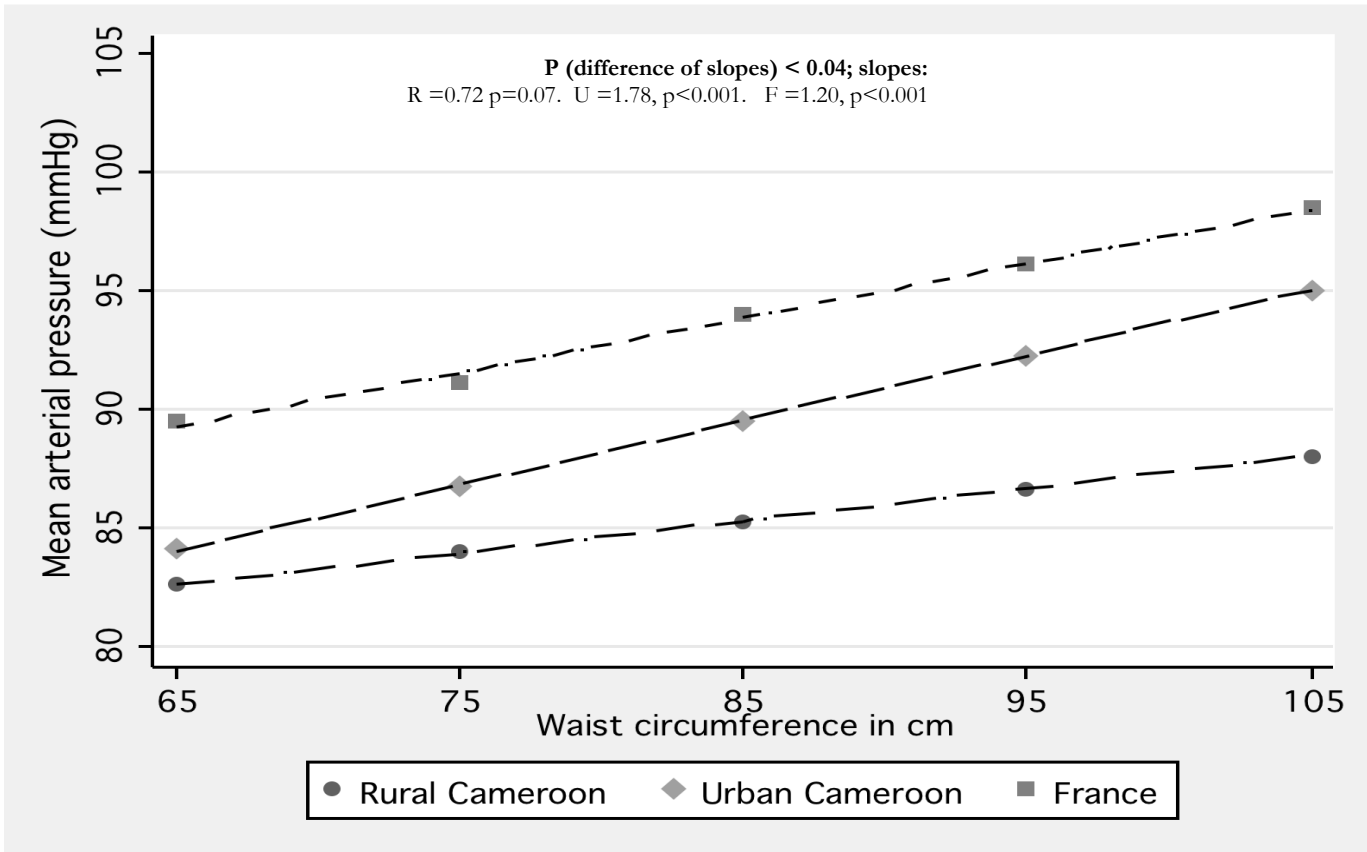
For the significance of each slope compared to zero slope in each model, * p<0.05; ** p<0.01; *** p < 0.001.

For the comparison of slopes between urban and rural Cameroon, A = p<0.05; B = p<0.01; C = p < 0.001.

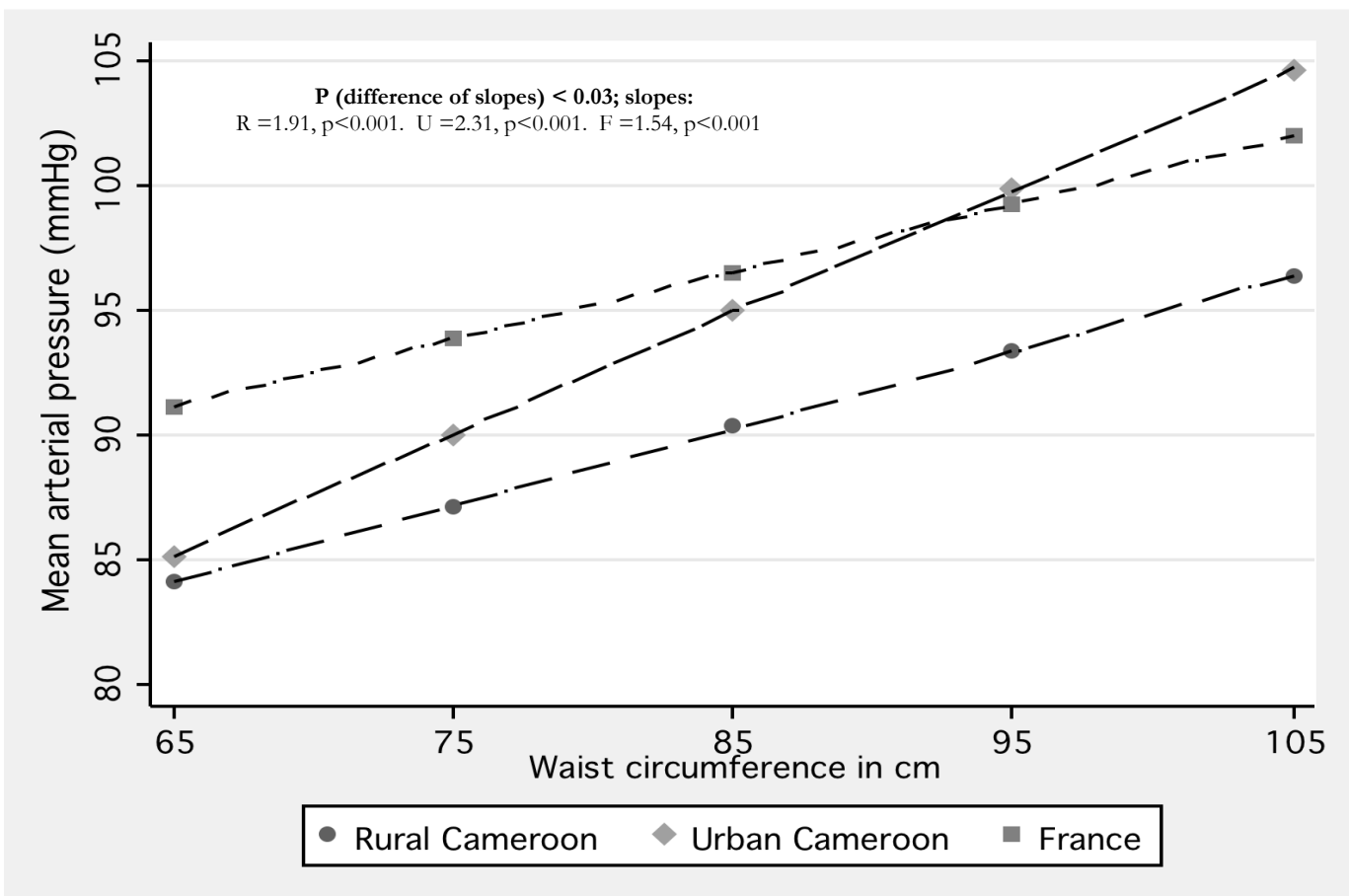
For the comparison of slopes between urban Cameroon and France, X = p<0.05; Y = p<0.01; Z = p < 0.001.

A

Women

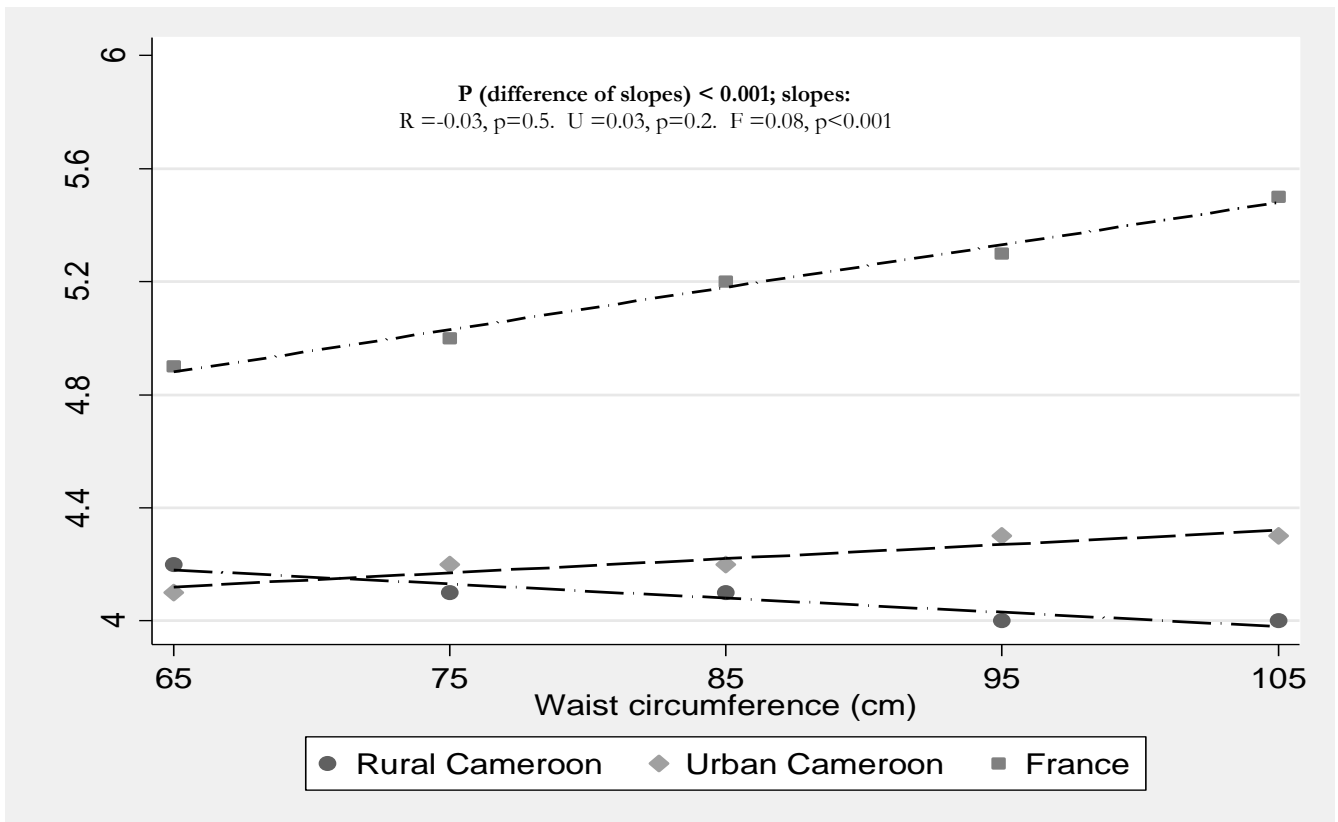


Men

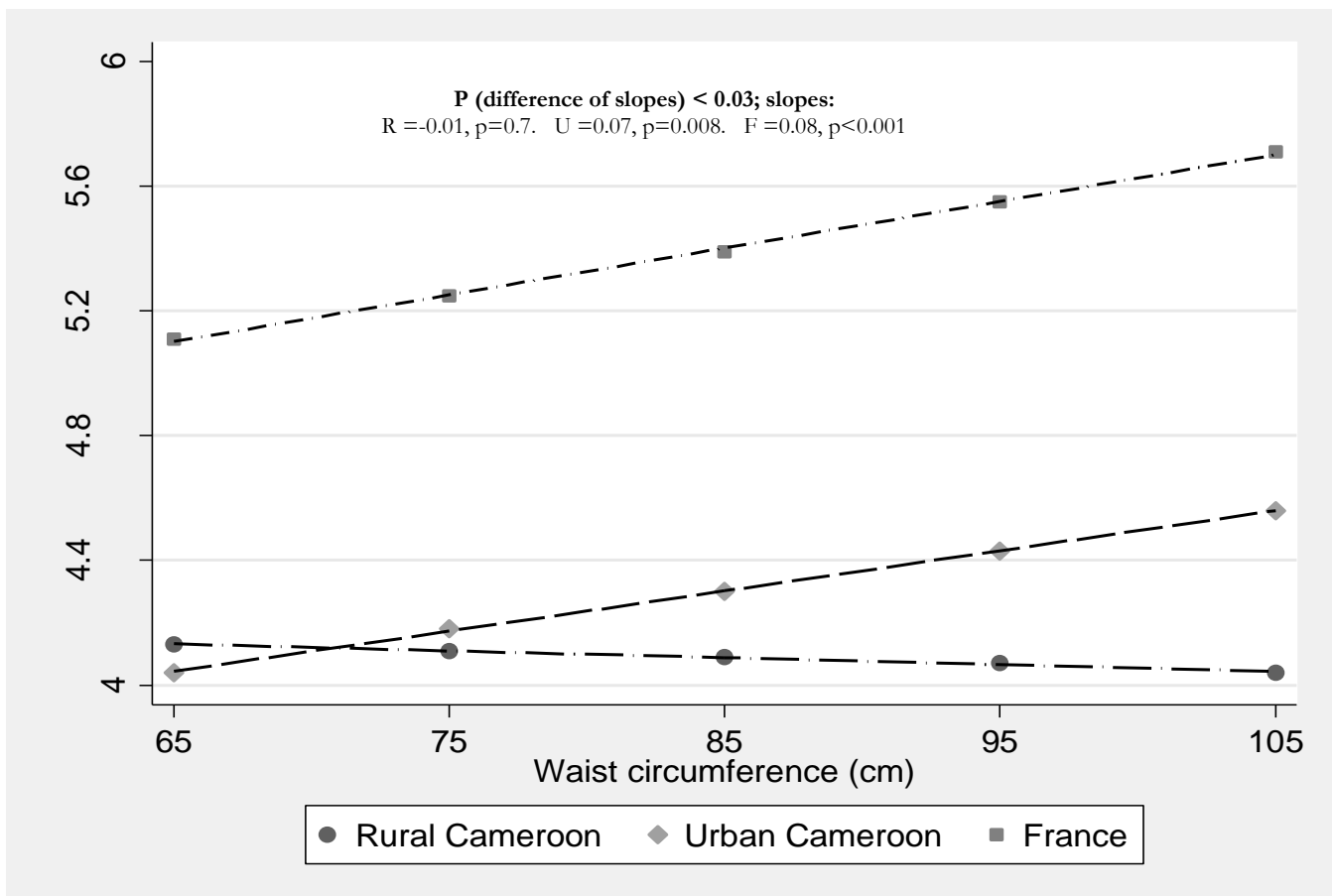


B

Women

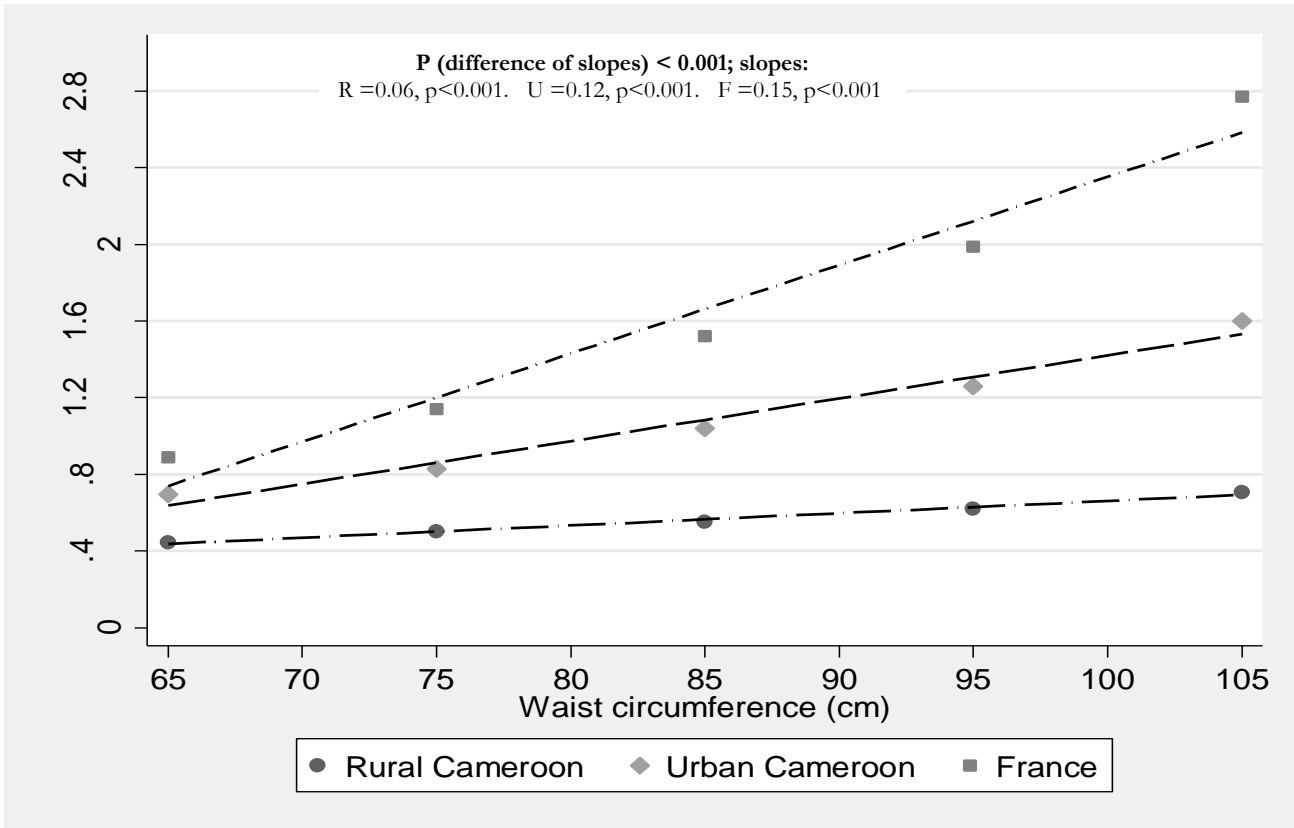


Men

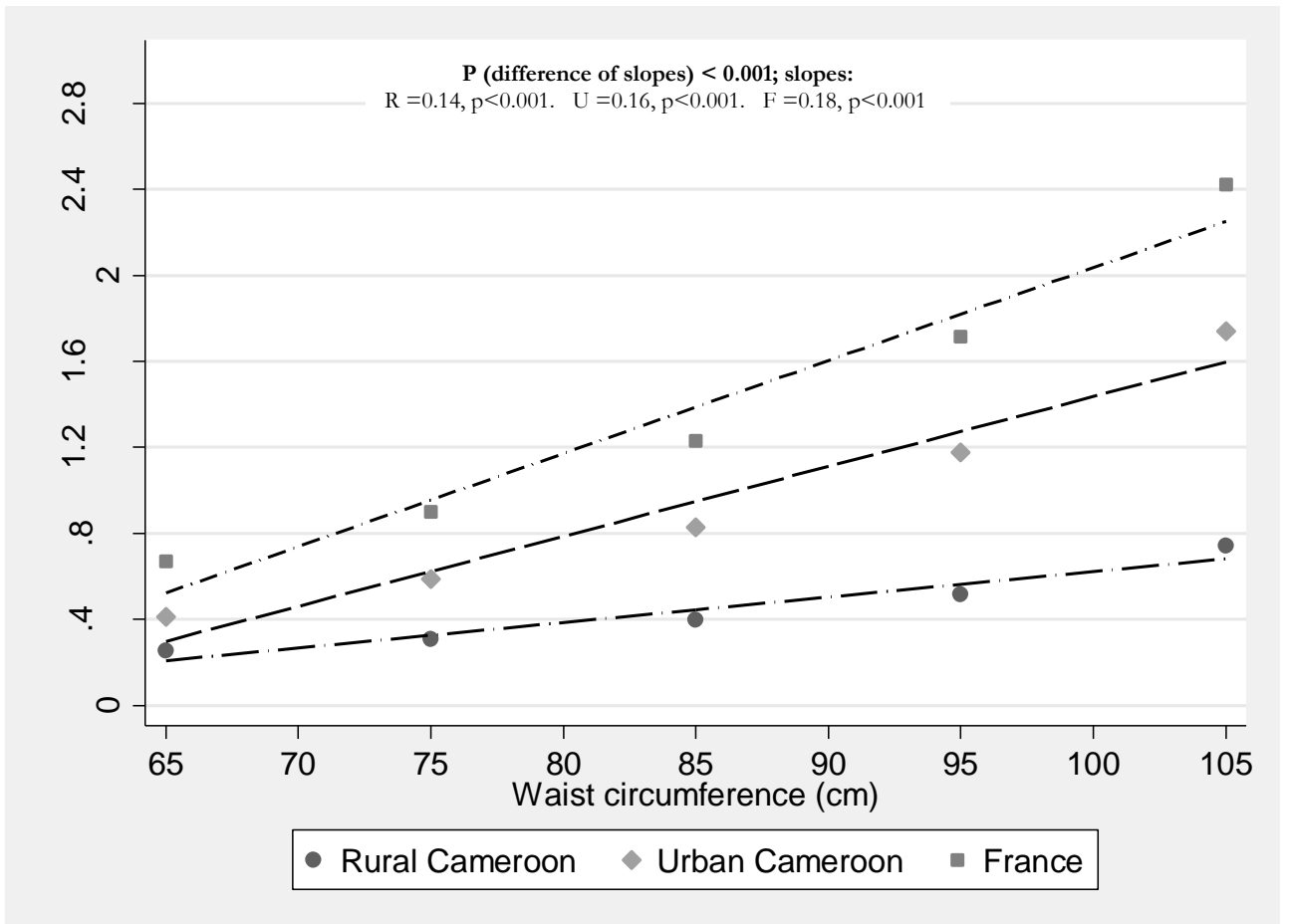


C

Women



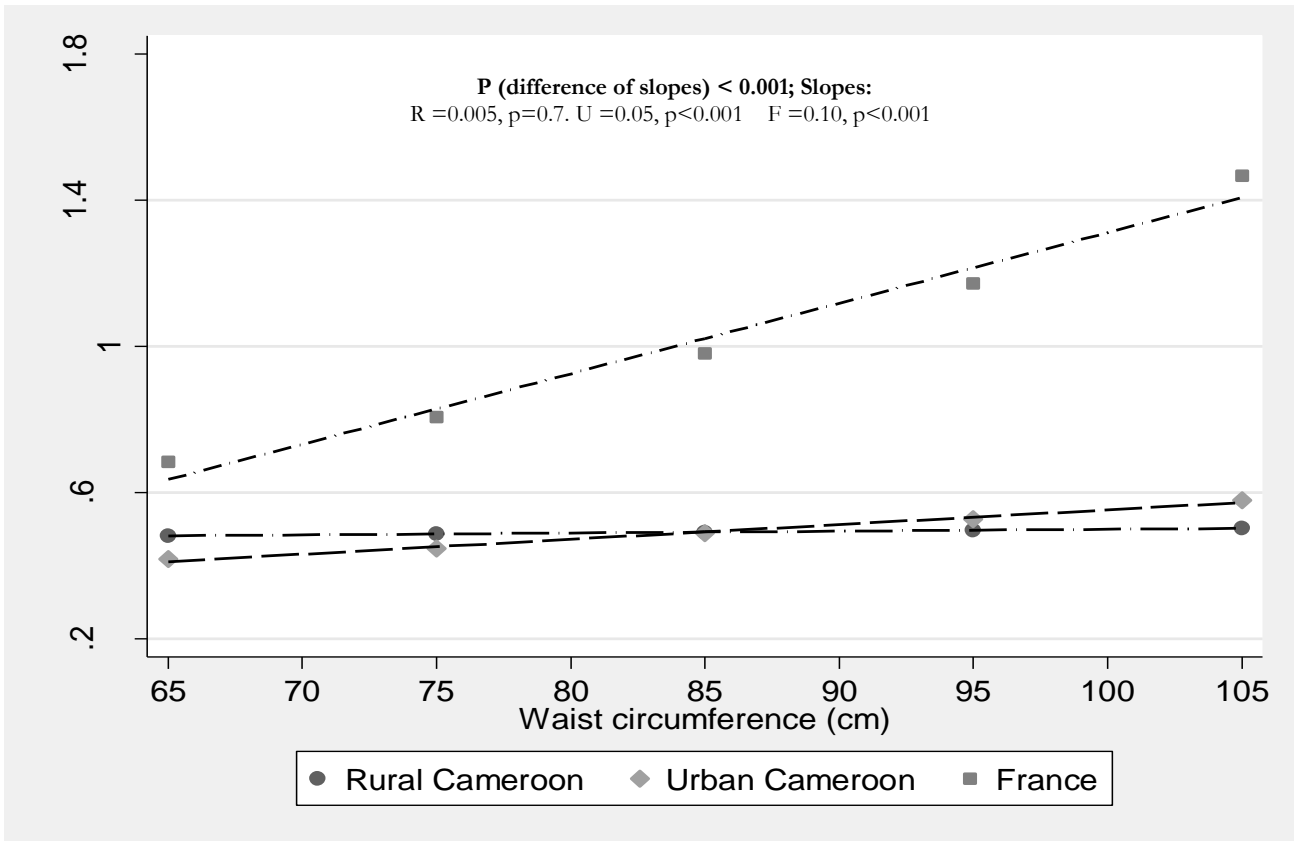
Men



E

D

Women



Men

