

Table 1. Baseline characteristics* of the population by gender (N=3,027).
Western New York Health Study, Buffalo, USA, (1996-2001)

Variable	Women N=1,710	Men N=1,317	P
Socio-demographics			
Age (years)	55.8	57.2	0.001
Pre-menopausal (%)	33.6	-	
Education (years)	13.5	14.0	<0.001
Marital Status (% unmarried)	29.5	16.1	<0.001
Household income(%<\$30,000)	33.7	24.5	<0.001
CVD risk factors			
BMI (kg/m ²)	27.9	28.2	0.193
Waist circumference (cm)	86.3	98.5	<0.001
Physical activity (h/week)	5.0	5.3	<0.001
Current Drinker (%)	62.5	75.9	<0.001
Current Smoker (%)	34.7	46.3	<0.001
Diabetes [†] (%)	6.7	9.7	0.004
General health/psychiatric co-morbidities			
SF-36 Physical Score	48.8	50.3	<0.001
SF-36 Mental Score	52.3	53.9	<0.001
Depressive symptoms (%)	11.6	6.0	<0.001
Sleep categories (%)			
Short sleep (<6 hours)	13.0	14.5	0.302
Midrange (6-8 hours)	81.6	79.3	
Long sleep (>8 hours)	5.4	6.2	
Hypertension[‡] (%)			
Overall	28.5	35.7	<0.001
On medication	22.7	25.0	
No Medication	5.8	10.7	

* Data are expressed as the mean (standard deviation) or as percentages

[†] Defined as fasting glucose \geq 126 mg/dl (\geq 7.0 mmol/l) or use of antidiabetic medication

[‡] Defined as blood pressure \geq 140/90 mm Hg or regular use of antihypertensive medication

Table 2. Baseline characteristics* across categories of sleep duration (N=3,027).
Western New York Health Study, Buffalo, USA, (1996-2001)

Variable	< 6 hours	6-8 hours	> 8 hours	P[†]
Women n=1,710				
N	223	1,395	92	
Age (years)	56.7	55.4	58.4	0.021
Pre-menopausal (%)	28.3	34.8	29.3	0.108
Education (years)	12.9	13.7	13.3	<0.001
Unmarried (%)	38.6	28.4	25.0	0.005
Lowest income (%)	45.6	32.3	27.5	<0.001
BMI (kg/m ²)	29.6	27.7	27.9	<0.001
Waist (cm)	90.6	85.6	87.8	<0.001
Physical activity (h/week)	5.2	5.0	5.1	<0.001
Current Drinker (%)	50.5	64.9	56.5	<0.001
Current Smoker (%)	18.4	14.6	16.3	0.553
Diabetes (%)	6.6	6.8	6.8	0.996
SF-36 Physical Score	44.9	49.6	45.8	<0.001
SF-36 Mental Score	50.4	52.6	52.6	0.004
Depressive symptoms (%)	21.8	9.7	15.9	<0.001
Hypertension (%)	39.5	26.3	34.8	<0.001
Men=1,317				
N	191	1,045	81	
Age (years)	54.9	57.2	63.6	<0.001
Education (years)	13.4	14.1	13.8	0.002
Unmarried (%)	22.5	14.9	17.3	0.029
Lowest income (%)	28.9	23.2	31.2	0.128
BMI (kg/m ²)	28.7	28.1	28.7	0.150
Waist (cm)	99.3	98.1	100.7	0.123
Physical activity (h/week)	5.4	5.3	5.2	<0.001
Current Drinker (%)	72.2	76.5	77.5	0.235
Current Smoker (%)	23.6	13.6	19.8	0.005
Diabetes (%)	8.7	9.7	11.5	0.782
SF-36 Physical Score	49.3	50.7	47.4	0.001
SF-36 Mental Score	51.7	54.2	55.3	<0.001
Depressive symptoms (%)	12.8	4.9	2.9	<0.001
Hypertension (%)	30.9	35.7	46.9	0.042

* Data are expressed as the mean (standard deviation) or as percentages.

[†] P values for comparison across sleep duration categories using the chi-squared analysis for categorical variables and the Kruskal Wallis test for continuous variables.

Table 3. Odds Ratios* (95% CI) of Hypertension across categories of sleep duration in women (N=1,710). Western New York Health Study, Buffalo, USA, (1996-2001)

Sleep categories	< 6 hours	6-8 hours	> 8 hours
<i>Overall (N=1,710)</i>			
N	223	1,395	92
Unadjusted model	1.83 (1.36-2.45)	1.00	1.49 (0.96-2.33)
Model 1 [†] (SES)	1.77 (1.26-2.48)	1.00	1.05 (0.61-1.80)
Model 2 [‡] (CVD risk factors)	1.68 (1.17-2.41)	1.00	0.87 (0.47-1.60)
Model 3 [#] (Fully-adjusted)	1.61 (1.08-2.41)	1.00	0.80 (0.41-1.55)
<i>Pre-menopausal women (N=575)</i>			
N			
Model 3 [#] (Fully-adjusted)	2.77 (1.23-6.25)	1.00	1.07 (0.22-5.12)
<i>Post-menopausal women (N=1,135)</i>			
N			
	1.40 (0.88-2.23)	1.00	0.75 (0.36-1.57)

* Odds ratios of prevalent hypertension comparing short and long duration of sleep vs. midrange category

[†] Model 1: age, education, marital status, household income

[‡] Model 2: M1 + BMI/waist, drinking/smoking, physical activity

[#] Model 3: M2 + SF-36 mental/physical, depressive symptoms

Table 4. Odds Ratios* (95% CI) of Hypertension across categories of sleep duration in men (N=1,317). Western New York Health Study, Buffalo, USA, (1996-2001)

Sleep categories	< 6 hours	6-8 hours	> 8 hours
N	191	1,045	81
Unadjusted model	0.80 (0.58-1.12)	1.00	1.59 (1.01-2.51)
Model 1 [†] (SES)	0.93 (0.65-1.32)	1.00	1.27 (0.78-2.07)
Model 2 [‡] (CVD risk factors)	0.90 (0.62-1.31)	1.00	1.21 (0.73-2.02)
Model 3 [#] (Fully-adjusted)	0.88 (0.59-1.32)	1.00	1.36 (0.78-2.37)

* Odds ratios of prevalent hypertension comparing short and long duration of sleep vs. midrange category

[†] Model 1: age, education, marital status, household income

[‡] Model 2: M1 + BMI/waist, drinking/smoking, physical activity

[#] Model 3: M2 + SF-36 mental/physical, depressive symptoms