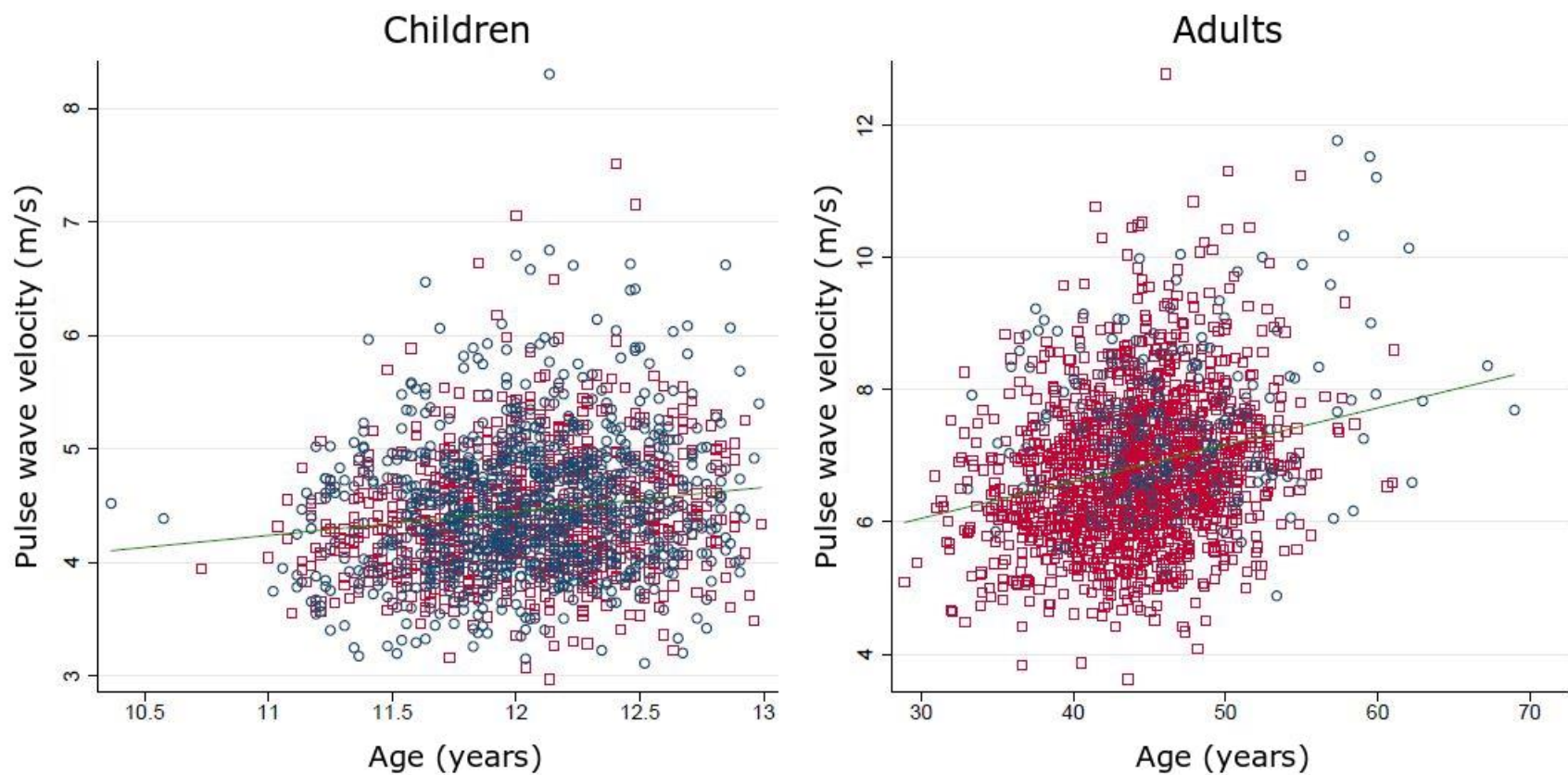


## SUPPLEMENTARY MATERIAL

**Supplementary table 1. Percentile values for vascular function markers.**

Characteristic	Child							Parent						
	P5	P10	P25	P50	P75	P90	P95	P5	P10	P25	P50	P75	P90	P95
<b>Brachial systolic blood pressure, mmHg</b>														
Male	95.7	98.3	102.7	107.7	113.3	119.7	125.7	110.7	114.0	119.3	126.3	137.3	142.0	147.0
Female	97.0	99.3	103.3	108.0	114.0	119.0	121.7	101.7	104.7	110.0	117.0	125.0	136.0	142.0
All	96.3	98.7	103.0	107.7	113.7	119.3	122.3	102.3	105.7	110.7	118.0	126.7	137.7	143.3
<b>Brachial diastolic blood pressure, mmHg</b>														
Male	52.7	55.0	58.0	62.0	66.0	70.0	72.7	65.3	66.7	72.0	76.5	82.5	89.3	92.0
Female	53.7	56.0	59.0	62.7	66.3	70.0	72.0	60.3	62.3	66.7	71.7	77.3	84.3	88.0
All	53.0	55.3	58.5	62.3	66.0	70.0	72.3	60.5	62.7	67.3	72.3	78.3	84.7	89.0
<b>Central systolic blood pressure, mmHg</b>														
Male	82.5	84.7	87.5	92.0	96.7	101.0	104.7	98.7	100.3	106.7	112.7	122.0	128.3	132.7
Female	83.7	85.7	89.0	93.0	97.5	103.0	104.5	91.0	94.0	98.7	105.3	112.7	123.7	131.0
All	83.0	85.0	88.3	92.5	97.0	102.0	104.5	91.3	94.3	99.5	106.3	114.0	125.0	131.5
<b>Central diastolic blood pressure, mmHg</b>														
Male	53.7	55.3	58.7	62.7	66.3	71.0	73.7	66.3	67.0	72.0	77.0	83.0	90.3	93.0
Female	53.5	56.0	59.7	63.7	67.3	71.0	73.3	60.3	62.7	67.3	72.0	78.0	85.0	89.0
All	53.7	55.7	59.0	63.0	67.0	71.0	73.5	60.7	63.0	67.7	72.5	78.7	85.7	90.0
<b>Central pulse pressure, mmHg</b>														
Male	22.0	23.3	25.7	28.5	32.3	35.0	38.0	26.3	28.3	31.0	34.7	38.7	43.0	46.5
Female	22.7	24.0	26.0	28.7	32.3	36.3	38.7	25.3	27.0	29.5	33.0	36.7	41.5	45.3
All	22.3	23.7	26.0	28.7	32.3	35.7	38.3	25.3	27.0	29.7	33.0	37.0	42.0	45.5
<b>Augmentation index, %</b>														
Male	-16.3	-11.0	-5.00	2.33	10.0	17.0	22.7	-3.33	1.33	8.67	16.5	24.0	30.0	32.5
Female	-10.6	-6.50	-0.33	5.67	12.6	20.3	24.7	2.00	6.00	14.0	21.7	30.0	37.7	42.7
All	-13.0	-9.67	-3.00	4.00	11.3	18.3	24.0	1.00	5.33	13.0	21.5	29.3	37.0	41.7
<b>Pulse wave velocity, m/s</b>														
Male	3.63	3.80	4.06	4.44	4.87	5.33	5.63	6.04	6.33	6.66	7.49	8.20	9.05	9.79
Female	3.70	3.84	4.06	4.38	4.74	5.10	5.39	5.09	5.43	5.99	6.66	7.37	8.18	8.61
All	3.67	3.82	4.06	4.40	4.82	5.22	5.50	5.14	5.48	6.08	6.74	7.48	8.35	8.85

PX: value of Xth percentile, e.g. P50 = median



**Supplementary figure 1. Relationship of pulse wave velocity to age in children and adults.**

Red squares represent females, blue circles represent males. Green line is the line of best fit.

**Supplementary table 2. Weighted proportion of children and parents with hypertension, stratified by sex.**

Hypertension classification	Percentage		
	All	Male	Female
<b>Children</b> (N=1776; 897 boys, 879 girls)			
Prehypertension	3.2	2.7	3.6
Hypertension	3.9	4.7	3.1
Systolic prehypertension	3.1	2.6	3.6
Systolic hypertension	3.9	4.7	3.1
Diastolic prehypertension	0.2	0.2	0.2
Diastolic hypertension	0.4	0.5	0.2
<b>Parents</b> (N=1749; 216 fathers, 1533 mothers)			
Prehypertension	35.0	56.5	32.0
Hypertension	9.0	18.2	7.7
Systolic prehypertension	35.6	58.5	32.5
Systolic hypertension	7.9	15.5	6.8
Diastolic prehypertension	16.4	28.2	14.8
Diastolic hypertension	4.2	9.0	3.5

Hypertension = systolic or diastolic hypertension.

Prehypertension = systolic or diastolic prehypertension.

Child hypertension: blood pressure  $\geq 95^{\text{th}}$  percentile in a normative distribution of healthy children

Child prehypertension: blood pressure  $\geq 90^{\text{th}}$  but  $< 95^{\text{th}}$  in a normative distribution of healthy children.

Adult systolic hypertension: systolic blood pressure  $\geq 140\text{mmHg}$ ; systolic prehypertension  $\geq 120\text{mmHg}$  and  $< 140\text{mmHg}$

Adult diastolic hypertension: diastolic blood pressure  $\geq 90\text{mmHg}$ ; diastolic prehypertension  $\geq 80\text{mmHg}$  and  $< 90\text{mmHg}$