

## ONLINE SUPPLEMENT

### **PREDICTION OF AMBULATORY HYPERTENSION BASED ON CLINIC BLOOD PRESSURE PERCENTILE IN ADOLESCENTS: THE SHIP AHOY STUDY**

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Table S1. Prediction of Sleep and Wake and/or Systolic Ambulatory HTN Based on Different Clinic SBP Parameters

<b>SBP parameter</b>		<b>Sensitivity</b>	<b>Specificity</b>
<b>Sleep</b>			
<b>Fourth Report</b>	<b>80<sup>th</sup> %ile</b>	82.5%	54.7%
	<b>85<sup>th</sup> %ile</b>	77.5%	67.0%
	<b>90<sup>th</sup> %ile</b>	67.5%	76.9%
	<b>SBP Pre-HTN</b>	90.0%	49.3%
<b>2017 CPG</b>	<b>80<sup>th</sup> %ile</b>	85.0%	47.3%
	<b>85<sup>th</sup> %ile</b>	82.5%	56.7%
	<b>90<sup>th</sup> Percentile</b>	75.0%	69.5%
	<b>Elevated SBP</b>	87.5%	48.0%
<b>Wake and/or Sleep</b>			
<b>Fourth Report</b>	<b>80<sup>th</sup> %ile</b>	80.4%	56.9%
	<b>85<sup>th</sup> %ile</b>	76.8%	70.2%
	<b>90<sup>th</sup> %ile</b>	62.5%	78.7%
	<b>SBP Pre-HTN</b>	85.7%	51.1%
<b>2017 CPG</b>	<b>80<sup>th</sup> %ile</b>	85.7%	50.0%
	<b>85<sup>th</sup> %ile</b>	80.4%	59.0%
	<b>90<sup>th</sup> %ile</b>	73.2%	72.3%
	<b>Elevated SBP</b>	83.9%	49.7%

Table S2. Prediction of Diastolic Ambulatory HTN Based on Different Clinic DBP Parameters

<b>DBP parameter</b>	<b>Sensitivity</b>	<b>Specificity</b>	
<b>Wake</b>			
<b>Fourth Report</b>	<b>80<sup>th</sup> %ile</b>	87.1%	39.1%
	<b>85<sup>th</sup> %ile</b>	87.1%	46.5%
	<b>90<sup>th</sup> %ile</b>	80.6%	55.3%
	<b>95<sup>th</sup> %ile</b>	67.7%	65.1%
	<b>DBP Pre-HTN</b>	87.1%	50.2%
<b>2017 CPG</b>	<b>80<sup>th</sup> %ile</b>	90.0%	34.1%
	<b>85<sup>th</sup> %ile</b>	86.7%	41.1%
	<b>90<sup>th</sup> %ile</b>	86.7%	48.6%
	<b>95<sup>th</sup> %ile</b>	83.3%	59.8%
	<b>Elevated DBP</b>	87.1%	49.5%
<b>Sleep</b>			
<b>Fourth Report</b>	<b>80<sup>th</sup> %ile</b>	93.3%	39.6%
	<b>85<sup>th</sup> %ile</b>	90.0%	46.7%
	<b>90<sup>th</sup> %ile</b>	76.7%	54.7%
	<b>95<sup>th</sup> %ile</b>	70.0%	65.1%
	<b>DBP Pre-HTN</b>	86.7%	50.0%
<b>2017 CPG</b>	<b>80<sup>th</sup> %ile</b>	93.3%	34.8%
	<b>85<sup>th</sup> %ile</b>	93.3%	41.9%
	<b>90<sup>th</sup> %ile</b>	90.0%	49.1%
	<b>95<sup>th</sup> %ile</b>	76.7%	58.6%
	<b>Elevated DBP</b>	86.7%	49.3%
<b>Wake and/or Sleep</b>			
<b>Fourth Report</b>	<b>80<sup>th</sup> %ile</b>	87.5%	41.3%
	<b>85<sup>th</sup> %ile</b>	85.4%	49.0%
	<b>90<sup>th</sup> %ile</b>	77.1%	57.7%
	<b>95<sup>th</sup> %ile</b>	64.6%	66.8%
	<b>DBP Pre-HTN</b>	83.3%	52.6%
<b>2017 CPG</b>	<b>80<sup>th</sup> %ile</b>	89.4%	36.4%
	<b>85<sup>th</sup> %ile</b>	87.2%	43.6%
	<b>90<sup>th</sup> %ile</b>	85.1%	51.3%
	<b>95<sup>th</sup> %ile</b>	76.6%	61.5%
	<b>Elevated DBP</b>	83.3%	51.8%

Table S3. Clinic SBP 85th Percentile for Boys by Age and Height Percentile

Age (y)		Height Percentile						
		5%	10%	25%	50%	75%	90%	95%
5	Height (in)	41.1	41.8	43.0	44.3	45.5	46.7	47.4
	Height (cm)	104.4	106.2	109.1	112.4	115.7	118.6	120.3
	SBP 85th %ile	100.6	101.3	102.3	103.6	104.8	106	106.6
6	Height (in)	43.4	44.2	45.4	46.8	48.2	49.4	50.2
	Height (cm)	110.3	112.2	115.3	118.9	122.4	125.6	127.5
	SBP 85th %ile	102.0	102.8	104.0	105.5	106.9	108.1	108.8
7	Height (in)	45.7	46.5	47.8	49.3	50.8	52.1	52.9
	Height (cm)	116.1	118	121.4	125.1	128.9	132.4	134.5
	SBP 85th %ile	103.9	104.7	105.9	107.2	108.4	109.3	109.8
8	Height (in)	47.8	48.6	50	51.6	53.2	54.6	55.5
	Height (cm)	121.4	123.5	127	131	135.1	138.8	141
	SBP 85th %ile	104.9	105.6	106.6	107.8	108.9	109.9	110.5
9	Height (in)	49.6	50.5	52	53.7	55.4	56.9	57.9
	Height (cm)	126.0	128.3	132.1	136.3	140.7	144.7	147.1
	SBP 85th %ile	105.4	106.1	107.4	108.7	110.0	111.1	111.8
10	Height (in)	51.3	52.2	53.8	55.6	57.4	59.1	60.1
	Height (cm)	130.2	132.7	136.7	141.3	145.9	150.1	152.7
	SBP 85th %ile	106.9	107.7	108.9	110.2	111.4	112.7	113.5
11	Height (in)	53.0	54.0	55.7	57.6	59.6	61.3	62.4
	Height (cm)	134.7	137.3	141.5	146.4	151.3	155.8	158.6
	SBP 85th %ile	109	109.7	110.8	112.0	113.4	115.1	116.3
12	Height (in)	55.2	56.3	58.1	60.1	62.2	64	65.2
	Height (cm)	140.3	143	147.5	152.7	157.9	162.6	165.5
	SBP 85th %ile	111.3	111.9	112.9	114.5	116.8	119.3	120.8
13	Height (in)	57.9	59.1	61	63.1	65.2	67.1	68.3
	Height (cm)	147.0	150.0	154.9	160.3	165.7	170.5	173.4
	SBP 85th %ile	113.6	114.3	116.2	119.1	121.9	123.8	124.6
14	Height (in)	60.6	61.8	63.8	65.9	68.0	69.8	70.9
	Height (cm)	153.8	156.9	162.0	167.5	172.7	177.4	180.1
	SBP 85th %ile	116.5	118.1	121.1	123.6	125.0	125.9	126.4
15	Height (in)	62.6	63.8	65.7	67.8	69.8	71.5	72.5
	Height (cm)	159.0	162.0	166.9	172.2	177.2	181.6	184.2
	SBP 85th %ile	120.8	122.4	124.4	125.7	126.8	127.7	128.3
16	Height (in)	63.8	64.9	66.8	68.8	70.7	72.4	73.4
	Height (cm)	162.1	165.0	169.6	174.6	179.5	183.8	186.4
	SBP 85th %ile	123.8	124.9	126.3	127.5	128.6	129.6	130.2
17	Height (in)	64.5	65.5	67.3	69.2	71.1	72.8	73.8
	Height (cm)	163.8	166.5	170.9	175.8	180.7	184.9	187.5
	SBP 85th %ile	125.8	126.7	128.0	129.2	130.4	131.5	132.1

Table S4. Clinic SBP 85th Percentile for Girls by Age and Height Percentile

Age (y)		Height Percentile						
		5%	10%	25%	50%	75%	90%	95%
<b>5</b>	Height (in)	40.8	41.5	42.6	43.9	45.2	46.5	47.3
	Height (cm)	103.6	105.3	108.2	111.5	114.9	118.1	120.0
	SBP 85th %ile	100.5	101.1	102.1	103.3	104.5	105.6	106.4
<b>6</b>	Height (in)	43.3	44.0	45.2	46.6	48.1	49.4	50.3
	Height (cm)	110.0	111.8	114.9	118.4	122.1	125.6	127.7
	SBP 85th %ile	101.5	102.2	103.3	104.6	106.0	107.3	108.1
<b>7</b>	Height (in)	45.6	46.4	47.7	49.2	50.7	52.1	53.0
	Height (cm)	115.9	117.8	121.1	124.9	128.8	132.5	134.7
	SBP 85th %ile	102.8	103.5	104.7	106.1	107.5	108.7	109.4
<b>8</b>	Height (in)	47.6	48.4	49.8	51.4	53.0	54.5	55.5
	Height (cm)	121.0	123.0	126.5	130.6	134.7	138.5	140.9
	SBP 85th %ile	104.1	104.8	106.0	107.3	108.5	109.8	110.5
<b>9</b>	Height (in)	49.3	50.2	51.7	53.4	55.1	56.7	57.7
	Height (cm)	125.3	127.6	131.3	135.6	140.1	144.1	146.6
	SBP 85th %ile	105.3	106.0	107.2	108.4	109.7	110.8	111.6
<b>10</b>	Height (in)	51.1	52.0	53.7	55.5	57.4	59.1	60.2
	Height (cm)	129.7	132.2	136.3	141.0	145.8	150.2	152.8
	SBP 85th %ile	107.0	107.7	108.9	110.1	111.4	112.7	113.6
<b>11</b>	Height (in)	53.4	54.5	56.2	58.2	60.2	61.9	63.0
	Height (cm)	135.6	138.3	142.8	147.8	152.8	157.3	160.0
	SBP 85th %ile	109.6	110.2	111.3	112.6	114.2	116.1	117.3
<b>12</b>	Height (in)	56.2	57.3	59.0	60.9	62.8	64.5	65.5
	Height (cm)	142.8	145.5	149.9	154.8	159.6	163.8	166.4
	SBP 85th %ile	112.4	113.1	114.2	115.9	117.9	119.3	119.8
<b>13</b>	Height (in)	58.3	59.3	60.9	62.7	64.5	66.1	67.0
	Height (cm)	148.1	150.6	154.7	159.2	163.7	167.8	170.2
	SBP 85th %ile	114.5	115.2	116.6	118.4	119.7	120.4	120.8
<b>14</b>	Height (in)	59.3	60.2	61.8	63.5	65.2	66.8	67.7
	Height (cm)	150.6	153.0	156.9	161.3	165.7	169.7	172.1
	SBP 85th %ile	115.6	116.4	117.8	119.3	120.2	120.7	121.1
<b>15</b>	Height (in)	59.7	60.6	62.2	63.9	65.6	67.2	68.1
	Height (cm)	151.7	154.0	157.9	162.3	166.7	170.6	173.0
	SBP 85th %ile	116.6	117.3	118.7	119.9	120.6	121.2	121.6
<b>16</b>	Height (in)	59.9	60.8	62.4	64.1	65.8	67.3	68.3
	Height (cm)	152.1	154.5	158.4	162.8	167.1	171.1	173.4
	SBP 85th %ile	117.6	118.2	119.5	120.6	121.3	121.9	122.3
<b>17</b>	Height (in)	60.0	60.9	62.5	64.2	65.9	67.4	68.4
	Height (cm)	152.4	154.7	158.7	163.0	167.4	171.1	173.7
	SBP 85th %ile	118.6	119.2	120.4	121.4	122.2	122.8	123.2