

**Table S3.** Cohen's kappa coefficients were calculated for each pair of definitions in both study populations.

Children with obesity					
Comparison	American population			European population	
	Kappa	(95% CI)	p-value	Kappa	(95% CI) p-value
Cook - Zimmet <sup>a</sup>	0.66	(0.57-0.76)	<0.001	0.51	(0.45-0.56) <0.001
Cook - Ahrens <sup>b</sup>	0.31	(0.19-0.42)	<0.001	0.40	(0.34-0.46) <0.001
Zimmet - Ahrens <sup>b</sup>	0.22	(0.13-0.31)	<0.001	0.13	(0.09-0.17) <0.001
Children with overweight					
Comparison	American population			European population	
	Kappa	(95% CI)	p-value	Kappa	(95% CI) p-value
Cook - Zimmet <sup>a</sup>	0.50	(0.30-0.70)	<0.001	0.49	(0.34-0.63) <0.001
Cook - Ahrens <sup>b</sup>	0.31	(0.18-0.44)	<0.001	0.33	(0.18-0.49) <0.001
Zimmet - Ahrens <sup>b</sup>	0.12	(0.02-0.22)	0.017	0.22	(0.09-0.36) 0.002

<sup>a</sup> Whole population (ages 3-18) was used.

<sup>b</sup> Early childhood subset (ages 3-10) was used.