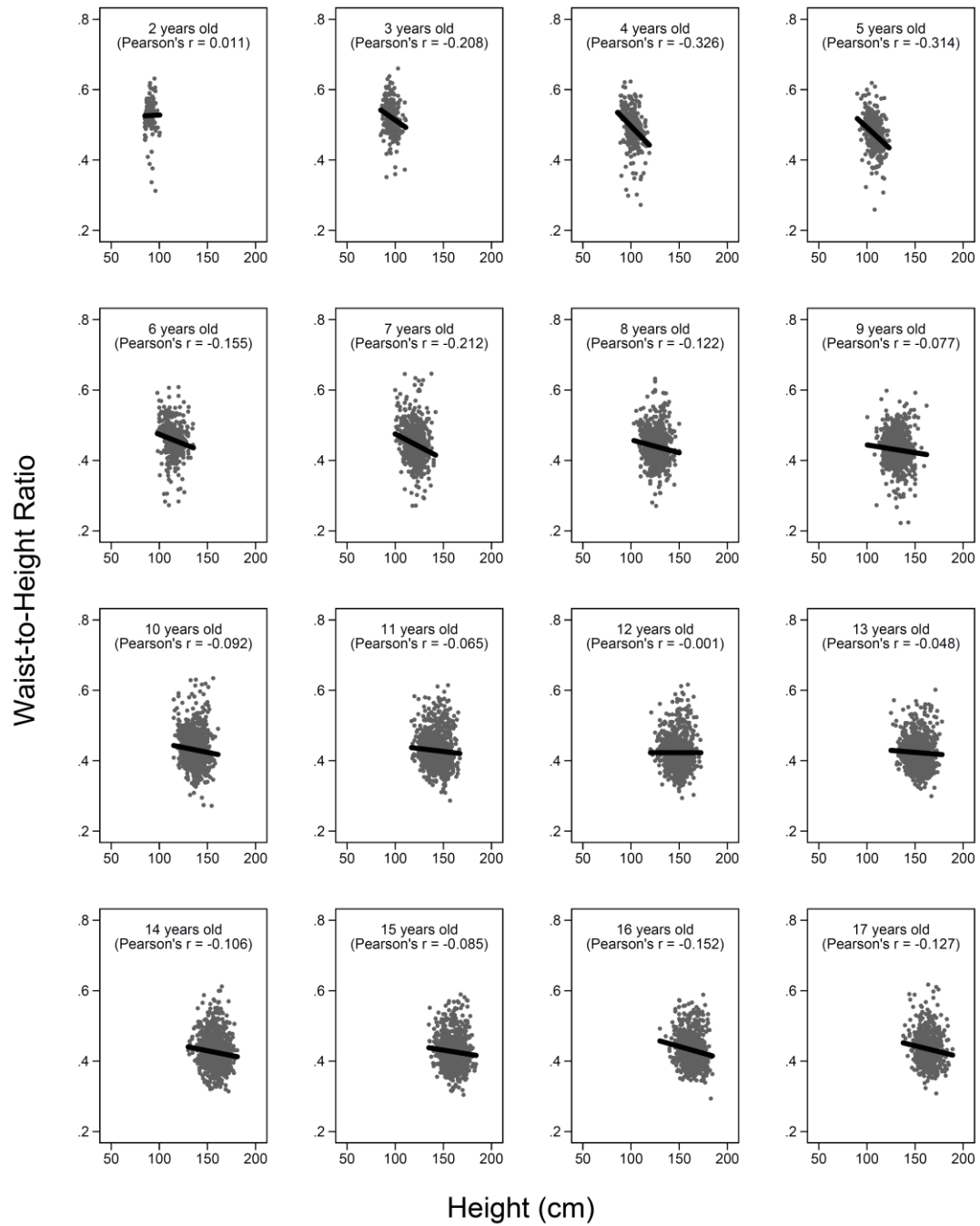
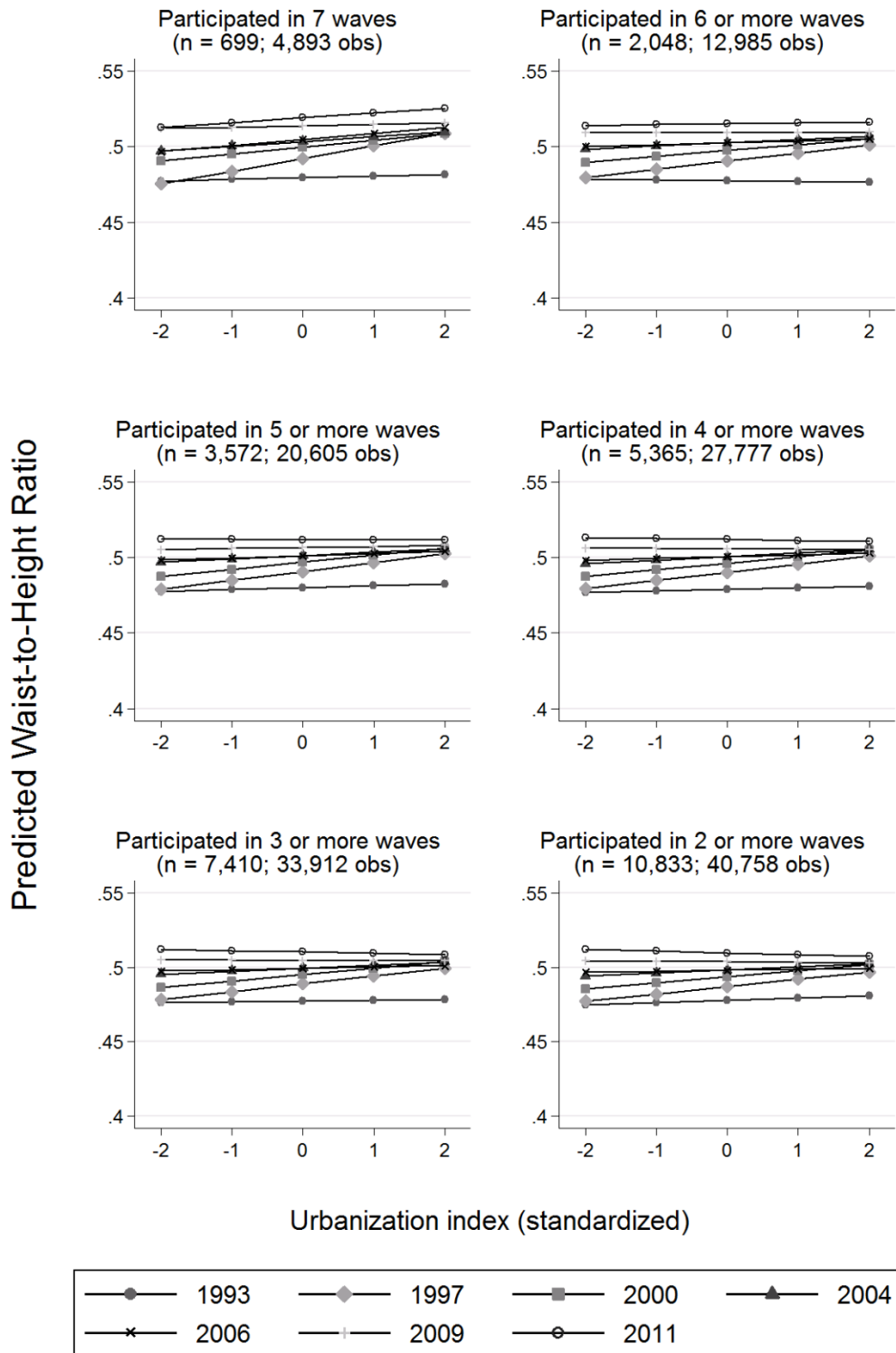


Supplementary Figure 1. Association between height and waist-to-height ratio in child participants in the China Health and Nutrition Survey (1993-2011).

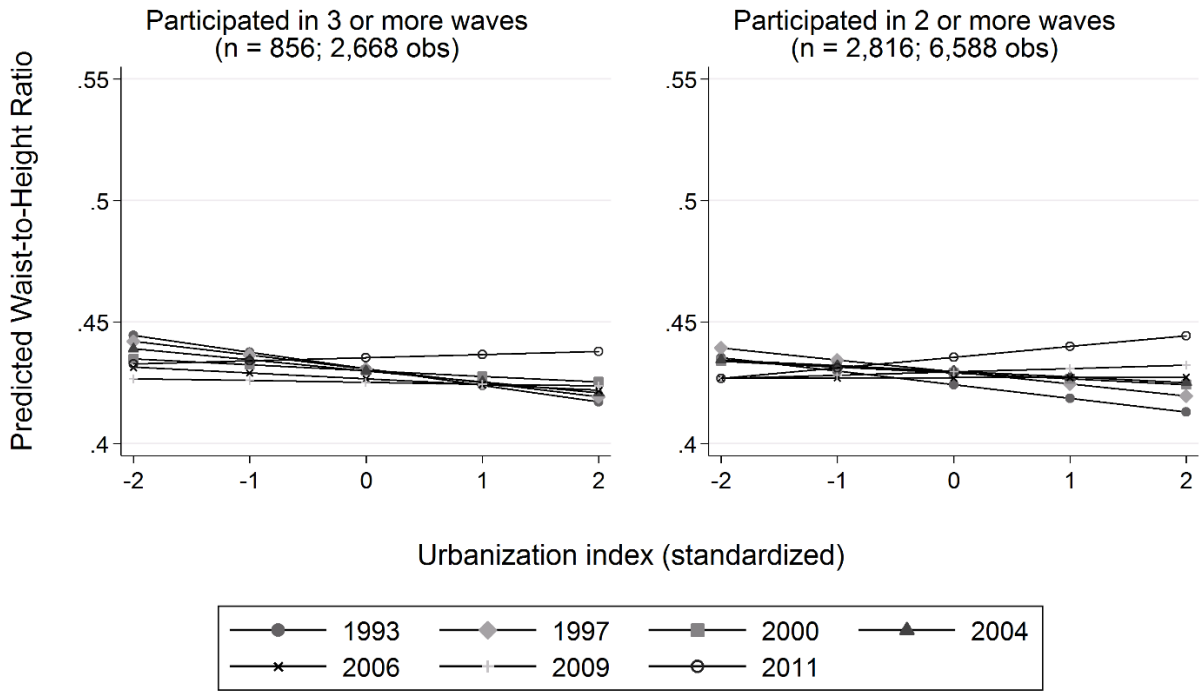


* Child participants were stratified by age (2-17 years old) and presented in scatter plots of height and waist-to-height ratio.

Supplementary Figure 2. Results of multilevel analysis including adult individuals who participated in multiple survey rounds



Supplementary Figure 3. Results of multilevel analysis including child individuals who participated in multiple survey rounds



Supplementary Table 1. 12 components of the urbanization index in the China Health and Nutrition Survey

Components	Descriptions
(1) Population density	The number of people divided by community area (km ²)
(2) Types of economic activity	Typical wage for ordinary male worker; Percent of the population who were engaged in non-agriculture
(3) Traditional market	Types of goods/markets available (grains, oil, meat, vegetables, fish, bean curd, milk, fabric and fuel); Distance to markets; The number of days of operation for markets
(4) Modern markets	The number of supermarket/hypermarkets, indoor restaurant, outdoor fixed and mobile food stall, fast food restaurant, ice cream parlor, bars, cafes, internet cafes, fruit and vegetable stores, bakeries.
(5) Transportation and infrastructure	Road type (paved, gravel, dirt); Distance to bus stop and train stop
(6) Sanitation	Water treatment plant available to household; Absence of excreta in public space
(7) Communications	Percent of households with a television; Percent of households with a computer; Percent of households with a cell phone; Cinema in neighborhood; Newspaper available to the neighborhood; Telephone service available to community; Postal service available to community
(8) Housing	Average number of days a week that electricity is available to the community; Prevalence of indoor tap water; Prevalence of flush toilet; Prevalence of natural gas
(9) Education	Average highest education attainment among adults.
(10) Diversity	Variation in education level; Variation in income level
(11) Health infrastructure	Type of health clinic; Distance to health clinic; The number of health clinics in neighborhood
(12) Social services	Preschool (0 – 3 years old); Type of insurance offered in community

* Please refer to Jones-Smith and Popkin [14] for details.

Supplementary Table 2. Testing wave-to-wave differences in the interaction effect between urbanization index and study wave in relation to waist-to-height ratio in China Health and Nutrition Survey (1993 – 2011)

	coef.	95%CI	p-value
Adult participants			
1997 vs 1993	0.003	(0.001 to 0.005)	< 0.001
2000 vs 1997	-0.001	(-0.002 to 0.001)	0.240
2004 vs 2000	-0.002	(-0.004 to -0.001)	0.001
2006 vs 2004	-0.001	(-0.002 to 0.000)	0.060
2009 vs 2006	-0.001	(-0.003 to - 0.000)	0.042
2011 vs 2009	-0.001	(-0.002 to 0.001)	0.359
Child participants			
1997 vs 1993	0.002	(-0.001 to 0.006)	0.208
2000 vs 1997	0.002	(-0.000 to 0.005)	0.106
2004 vs 2000	-0.001	(-0.004 to 0.002)	0.643
2006 vs 2004	0.002	(-0.001 to 0.005)	0.180
2009 vs 2006	-0.000	(-0.003 to 0.004)	0.828
2011 vs 2009	0.001	(-0.003 to 0.004)	0.776

Supplementary Table 3. Predicted waist-to-height ratios in relation to the degree of urbanization among study participants in the China Health and Nutrition Survey (1993 – 2011)

	Urbanization index					Change in WHtR per 1SD increase in urbanization index
	-2SD	-1SD	Mean	+1SD	+2SD	
Adult participants						
1993	0.473	0.475	0.477	0.479	0.481	0.002
1997	0.476	0.481	0.486	0.491	0.496	0.005
2000	0.484	0.488	0.492	0.496	0.500	0.004
2004	0.492	0.494	0.496	0.498	0.500	0.002
2006	0.495	0.495	0.496	0.496	0.497	0.001
2009	0.503	0.502	0.501	0.501	0.500	-0.001
2011	0.510	0.509	0.507	0.506	0.504	-0.001
Child participants						
1993	0.435	0.429	0.423	0.417	0.411	-0.006
1997	0.436	0.432	0.429	0.425	0.421	-0.004
2000	0.432	0.431	0.429	0.428	0.426	-0.001
2004	0.435	0.433	0.431	0.429	0.427	-0.002
2006	0.428	0.428	0.428	0.428	0.428	0.000
2009	0.429	0.430	0.431	0.431	0.432	0.001
2011	0.434	0.435	0.437	0.438	0.439	0.001