

Supplementary Table 1. Trends in prevalence of overweight, general obesity and abdominal obesity among Chinese Adults: the CHNS 1993-2009 (using WGOc criteria for Chinese)

	1993		1997		2000		2004		2006		2009		<i>p</i> for trend <sup>a</sup>	$\Delta$ <sup>b</sup>
	<i>n</i>	% (SE)	<i>n</i>	% (SE)	<i>n</i>	% (SE)	<i>n</i>	% (SE)	<i>n</i>	% (SE)	<i>n</i>	% (SE)		
Overweight														
Total	7760	17.4 (0.4)	8354	20.3 (0.4)	9333	24.1 (0.4)	8983	25.7 (0.5)	8826	26.5 (0.5)	9365	27.5 (0.5)	<0.001	10.1
Men														
Overall	3678	14.9 (0.6)	4048	18.5 (0.6)	4443	23.4 (0.6)	4263	26.2 (0.7)	4147	27.9 (0.7)	4420	30.0 (0.7)	<0.001	15.1
Age (years)														
18-39	1823	11.8 (0.8)	1839	15.8 (0.8)	1844	20.7 (0.9)	1391	23.1 (1.1)	1197	25.0 (1.3)	1177	26.9 (1.3)	<0.001	15.1
40-59	1269	19.2 (1.1)	1506	22.6 (1.1)	1776	28.0 (1.1)	1911	31.4 (1.1)	1931	33.5 (1.1)	2049	35.1 (1.1)	<0.001	15.9
≥60	586	17.1 (1.6)	703	19.9 (1.5)	823	23.7 (1.5)	961	26.9 (1.4)	1019	26.8 (1.4)	1194	30.3 (1.3)	<0.001	13.2
Region														
Urban	1152	19.7 (1.2)	1421	21.8 (1.1)	1506	25.4 (1.1)	1489	29.1 (1.2)	1408	29.1 (1.2)	1450	31.0 (1.2)	<0.001	11.3
Rural	2526	12.5 (0.7)	2627	16.5 (0.7)	2937	22.2 (0.8)	2774	24.5 (0.8)	2739	27.1 (0.8)	2970	29.4 (0.8)	<0.001	16.9
Women														
Overall	4082	19.8 (0.6)	4306	22.1 (0.6)	4890	24.8 (0.6)	4720	25.1 (0.6)	4679	25.3 (0.6)	4945	25.3 (0.6)	<0.001	5.5
Age (years)														
18-39	2063	15.0 (0.8)	1881	18.2 (0.9)	1973	19.4 (0.9)	1501	19.8 (1.0)	1324	19.8 (1.1)	1289	19.9 (1.1)	<0.001	4.9

	40-59	1390	26.4 (1.2)	1634	28.8 (1.1)	1967	33.7 (1.1)	2147	34.0 (1.0)	2179	33.6 (1.0)	2311	32.8 (1.0)	<0.001	6.4
	≥60	629	23.5 (1.7)	791	22.4 (1.5)	950	26.0 (1.4)	1072	26.3 (1.3)	1176	28.4 (1.3)	1345	29.9 (1.2)	<0.001	6.4
	Region														
	Urban	1269	24.0 (1.2)	1553	26.8 (1.1)	1670	28.0 (1.1)	1664	26.7 (1.1)	1598	24.7 (1.1)	1652	22.8 (1.0)	0.316	-1.2
	Rural	2813	17.6 (0.7)	2753	19.3 (0.8)	3220	22.9 (0.7)	3056	24.1 (0.8)	3081	25.3 (0.8)	3293	26.3 (0.8)	<0.001	8.7
	General obesity														
	Total	7760	2.9 (0.2)	8354	4.7 (0.2)	9333	6.3 (0.3)	8983	7.0 (0.3)	8826	7.3 (0.3)	9365	8.7 (0.3)	<0.001	5.8
	Men														
	Overall	3678	2.0 (0.2)	4048	4.2 (0.3)	4443	5.8 (0.4)	4263	6.4 (0.4)	4147	7.3 (0.4)	4420	8.7 (0.4)	<0.001	6.7
	Age (years)														
	18-39	1823	1.0 (0.2)	1839	2.9 (0.4)	1844	5.1 (0.5)	1391	5.6 (0.6)	1197	7.3 (0.8)	1177	8.8 (0.8)	<0.001	7.8
	40-59	1269	3.1 (0.5)	1506	5.0 (0.6)	1776	6.3 (0.6)	1911	7.5 (0.6)	1931	7.7 (0.6)	2049	9.8 (0.7)	<0.001	6.7
	≥60	586	3.4 (0.8)	703	7.8 (1.0)	823	7.4 (0.9)	961	7.1 (0.8)	1019	6.4 (0.8)	1194	6.3 (0.7)	0.024	2.9
	Region														
	Urban	1152	2.5 (0.5)	1421	5.9 (0.7)	1506	7.4 (0.7)	1489	7.0 (0.7)	1408	7.5 (0.7)	1450	10.1 (0.8)	<0.001	7.6
	Rural	2526	1.8 (0.3)	2627	3.3 (0.4)	2937	4.9 (0.4)	2774	6.0 (0.5)	2739	7.1 (0.5)	2970	8.0 (0.5)	<0.001	6.2
	Women														
	Overall	4082	3.8 (0.3)	4306	5.2 (0.4)	4890	6.7 (0.4)	4720	7.6 (0.4)	4679	7.3 (0.4)	4945	8.6 (0.4)	<0.001	4.8
	Age (years)														
	18-39	2063	1.6 (0.3)	1881	3.4 (0.4)	1973	4.2 (0.5)	1501	4.9 (0.6)	1324	4.1 (0.5)	1289	5.9 (0.7)	<0.001	4.3
	40-59	1390	6.0 (0.6)	1634	6.4 (0.6)	1967	9.3 (0.7)	2147	10.1 (0.7)	2179	10.5 (0.7)	2311	11.9 (0.7)	<0.001	5.9
	≥60	629	7.2 (1.0)	791	9.1 (1.0)	950	10.2 (1.0)	1072	12.5 (1.0)	1176	12.5 (1.0)	1345	11.9 (0.9)	<0.001	4.7
	Region														
	Urban	1269	3.8 (0.6)	1553	6.1 (0.6)	1670	6.7 (0.7)	1664	8.1 (0.7)	1598	7.6 (0.8)	1652	8.9 (0.8)	<0.001	5.1

Rural	2813	3.8 (0.4)	2753	4.6 (0.4)	3220	6.5 (0.5)	3056	7.2 (0.5)	3081	7.0 (0.5)	3293	8.4 (0.5)	<0.001	4.6
Abdominal obesity														
Total	7760	22.8 (0.5)	8354	27.9 (0.5)	9333	35.0 (0.5)	8983	39.0 (0.5)	8826	40.3 (0.5)	9365	45.3 (0.5)	<0.001	22.5
Men														
Overall	3678	17.2 (0.6)	4048	24.8 (0.7)	4443	32.5 (0.7)	4263	37.5 (0.7)	4147	39.1 (0.8)	4420	44.7 (0.7)	<0.001	27.5
Age (years)														
18-39	1823	12.6 (0.8)	1839	19.2 (0.9)	1844	27.5 (1.0)	1391	32.6 (1.3)	1197	35.0 (1.4)	1177	39.4 (1.4)	<0.001	26.8
40-59	1269	20.8 (1.1)	1506	29.3 (1.2)	1776	37.3 (1.1)	1911	43.9 (1.1)	1931	44.8 (1.1)	2049	51.7 (1.1)	<0.001	30.9
≥60	586	27.6 (1.8)	703	36.8 (1.8)	823	41.7 (1.7)	961	42.2 (1.6)	1019	42.8 (1.5)	1194	49.6 (1.4)	<0.001	22.0
Region														
Urban	1152	24.7 (1.3)	1421	30.0 (1.2)	1506	37.2 (1.2)	1489	41.3 (1.3)	1408	40.9 (1.3)	1450	46.5 (1.3)	<0.001	21.8
Rural	2526	13.7 (0.7)	2627	21.9 (0.8)	2937	29.9 (0.8)	2774	35.2 (0.9)	2739	37.9 (0.9)	2970	43.7 (0.9)	<0.001	30.0
Women														
Overall	4082	27.8 (0.7)	4306	30.8 (0.7)	4890	37.1 (0.7)	4720	40.3 (0.7)	4679	41.4 (0.7)	4945	45.9 (0.7)	<0.001	18.1
Age (years)														
18-39	2063	16.5 (0.8)	1881	20.3 (0.9)	1973	24.3 (1.0)	1501	27.4 (1.2)	1324	28.9 (1.2)	1289	33.3 (1.3)	<0.001	16.8
40-59	1390	38.6 (1.3)	1634	41.2 (1.2)	1967	50.7 (1.1)	2147	54.0 (1.1)	2179	54.4 (1.1)	2311	58.6 (1.0)	<0.001	20.0
≥60	629	47.4 (2.0)	791	47.7 (1.8)	950	56.2 (1.6)	1072	59.1 (1.5)	1176	60.7 (1.4)	1345	66.3 (1.3)	<0.001	18.9
Region														
Urban	1269	32.9 (1.3)	1553	33.6 (1.2)	1670	36.9 (1.2)	1664	39.9 (1.2)	1598	41.5 (1.2)	1652	42.9 (1.2)	<0.001	10.0
Rural	2813	25.1 (0.8)	2753	28.7 (0.9)	3220	36.6 (0.8)	3056	40.0 (0.9)	3081	41.1 (0.9)	3293	47.1 (0.9)	<0.001	22.0

<sup>a</sup> Linear trends in the prevalence of overweight, general obesity and abdominal obesity were tested using logistic regression model adjusted for sex, age and region.

<sup>b</sup> 2009-1993

Overweight and general obesity were defined as a BMI from 24 kg/m<sup>2</sup> to 27.99 kg/m<sup>2</sup> and a BMI ≥28 kg/m<sup>2</sup>, respectively. Abdominal obesity was defined as a WC≥85cm for men and ≥80cm for women.



Supplementary Table 2. Trends in prevalence of overweight, general obesity and abdominal obesity among Chinese Adults: the CHNS 1993-2009 (using WHO criteria for Europids)

	1993		1997		2000		2004		2006		2009		<i>p</i> for trend <sup>a</sup>	$\Delta$ <sup>b</sup>
	<i>n</i>	% (SE)	<i>n</i>	% (SE)	<i>n</i>	% (SE)	<i>n</i>	% (SE)	<i>n</i>	% (SE)	<i>n</i>	% (SE)		
Overweight														
Total	7760	12.5 (0.4)	8354	15.8 (0.4)	9333	19.4 (0.4)	8983	20.6 (0.4)	8826	21.5 (0.4)	9365	22.7 (0.4)	<0.001	10.2
Men														
Overall	3678	10.3 (0.5)	4048	14.8 (0.6)	4443	18.9 (0.6)	4263	20.8 (0.6)	4147	22.8 (0.7)	4420	24.8 (0.6)	<0.001	14.5
Age (years)														
18-39	1823	7.8 (0.6)	1839	11.9 (0.8)	1844	16.6 (0.9)	1391	17.4 (1.0)	1197	20.6 (1.2)	1177	23.0 (1.2)	<0.001	15.2
40-59	1269	13.6 (1.0)	1506	17.7 (1.0)	1776	22.4 (1.0)	1911	25.3 (1.0)	1931	26.8 (1.0)	2049	28.5 (1.0)	<0.001	14.9
≥60	586	12.8 (1.4)	703	19.7 (1.5)	823	20.4 (1.4)	961	24.0 (1.4)	1019	22.6 (1.3)	1194	23.4 (1.2)	<0.001	10.6
Region														
Urban	1152	14.4 (1.0)	1421	19.1 (1.0)	1506	22.3 (1.1)	1489	22.4 (1.1)	1408	22.6 (1.1)	1450	25.0 (1.1)	<0.001	10.6
Rural	2526	8.4 (0.6)	2627	12.4 (0.6)	2937	17.0 (0.7)	2774	19.6 (0.8)	2739	22.5 (0.8)	2970	24.6 (0.8)	<0.001	16.2
Women														
Overall	4082	14.5 (0.6)	4306	16.7 (0.6)	4890	19.8 (0.6)	4720	20.4 (0.6)	4679	20.3 (0.6)	4945	20.9 (0.6)	<0.001	6.4
Age (years)														
18-39	2063	9.9 (0.7)	1881	12.8 (0.8)	1973	15.0 (0.8)	1501	15.0 (0.9)	1324	14.5 (1.0)	1289	14.5 (1.0)	<0.001	4.6
40-59	1390	20.7 (1.1)	1634	22.6 (1.0)	1967	27.9 (1.0)	2147	28.7 (1.0)	2179	28.6 (1.0)	2311	29.6 (1.0)	<0.001	8.9
≥60	629	18.9 (1.6)	791	19.0 (1.4)	950	21.2 (1.3)	1072	23.3 (1.3)	1176	24.6 (1.3)	1345	26.3 (1.2)	<0.001	7.4
Region														

Urban	1269	17.2 (1.1)	1553	19.0 (1.0)	1670	22.5 (1.0)	1664	22.1 (1.0)	1598	19.2 (1.0)	1652	19.7 (1.0)	0.002	2.5
Rural	2813	13.1 (0.6)	2753	15.2 (0.7)	3220	18.3 (0.7)	3056	19.4 (0.7)	3081	20.6 (0.7)	3293	21.3 (0.7)	<0.001	8.2
General obesity														
Total	7760	0.9 (0.1)	8354	1.6 (0.1)	9333	2.4 (0.2)	8983	3.0 (0.2)	8826	3.2 (0.2)	9365	3.7 (0.2)	<0.001	2.8
Men														
Overall	3678	0.6 (0.1)	4048	1.1 (0.2)	4443	2.0 (0.2)	4263	2.3 (0.2)	4147	3.1 (0.3)	4420	3.6 (0.3)	<0.001	3.0
Age (years)														
18-39	1823	0.4 (0.1)	1839	0.6 (0.2)	1844	1.9 (0.3)	1391	2.3 (0.4)	1197	3.4 (0.5)	1177	3.5 (0.5)	<0.001	3.0
40-59	1269	0.6 (0.2)	1506	1.4 (0.3)	1776	2.0 (0.3)	1911	2.5 (0.4)	1931	2.8 (0.4)	2049	4.1 (0.4)	<0.001	3.5
≥60	586	1.4 (0.5)	703	2.7 (0.6)	823	2.6 (0.5)	961	2.2 (0.5)	1019	2.8 (0.5)	1194	3.5 (0.5)	0.005	2.1
Region														
Urban	1152	0.5 (0.2)	1421	1.7 (0.4)	1506	2.5 (0.4)	1489	2.9 (0.5)	1408	3.3 (0.5)	1450	4.5 (0.6)	<0.001	4.0
Rural	2526	0.6 (0.2)	2627	0.9 (0.2)	2937	1.8 (0.2)	2774	2.0 (0.3)	2739	3.0 (0.3)	2970	3.1 (0.3)	<0.001	2.5
Women														
Overall	4082	1.2 (0.2)	4306	2.1 (0.2)	4890	2.6 (0.2)	4720	3.5 (0.3)	4679	3.2 (0.3)	4945	3.7 (0.3)	<0.001	2.5
Age (years)														
18-39	2063	0.3 (0.1)	1881	1.3 (0.3)	1973	1.5 (0.3)	1501	2.4 (0.4)	1324	2.0 (0.4)	1289	2.7 (0.5)	<0.001	2.4
40-59	1390	2.2 (0.4)	1634	2.3 (0.4)	1967	3.5 (0.4)	2147	4.2 (0.4)	2179	4.1 (0.4)	2311	4.4 (0.4)	<0.001	2.2
≥60	629	2.4 (0.6)	791	4.7 (0.8)	950	4.9 (0.7)	1072	6.3 (0.7)	1176	5.4 (0.7)	1345	5.8 (0.6)	<0.001	3.4
Region														
Urban	1269	1.1 (0.3)	1553	2.6 (0.4)	1670	2.4 (0.4)	1664	3.6 (0.5)	1598	3.3 (0.5)	1652	3.5 (0.5)	<0.001	2.4
Rural	2813	1.2 (0.2)	2753	1.8 (0.3)	3220	2.7 (0.3)	3056	3.4 (0.3)	3081	3.1 (0.3)	3293	3.8 (0.4)	<0.001	2.6
Abdominal obesity														
Total	7760	5.5 (0.3)	8354	6.9 (0.3)	9333	9.1 (0.3)	8983	9.8 (0.3)	8826	10.1 (0.4)	9365	13.0 (0.4)	<0.001	7.5

Men														
Overall	3678	0.8 (0.1)	4048	1.7 (0.2)	4443	2.7 (0.3)	4263	2.7 (0.3)	4147	3.1 (0.3)	4420	4.5 (0.3)	<0.001	3.7
Age (years)														
18-39	1823	0.5 (0.2)	1839	0.9 (0.2)	1844	2.3 (0.3)	1391	2.3 (0.4)	1197	2.9 (0.5)	1177	3.9 (0.6)	<0.001	3.4
40-59	1269	0.5 (0.2)	1506	1.6 (0.3)	1776	2.6 (0.4)	1911	2.8 (0.4)	1931	2.9 (0.4)	2049	5.2 (0.5)	<0.001	4.7
≥60	586	2.6 (0.7)	703	4.8 (0.8)	823	4.7 (0.7)	961	3.9 (0.6)	1019	4.3 (0.6)	1194	5.2 (0.6)	0.070	2.6
Region														
Urban	1152	1.1 (0.3)	1421	2.1 (0.4)	1506	3.6 (0.5)	1489	3.5 (0.5)	1408	3.9 (0.5)	1450	4.9 (0.6)	<0.001	3.8
Rural	2526	0.6 (0.2)	2627	1.4 (0.2)	2937	2.2 (0.3)	2774	2.2 (0.3)	2739	2.7 (0.3)	2970	4.2 (0.4)	<0.001	3.6
Women														
Overall	4082	9.9 (0.5)	4306	11.9 (0.5)	4890	14.9 (0.5)	4720	16.2 (0.6)	4679	16.4 (0.6)	4945	20.7 (0.6)	<0.001	10.8
Age (years)														
18-39	2063	4.6 (0.5)	1881	6.8 (0.6)	1973	7.3 (0.6)	1501	8.7 (0.7)	1324	8.8 (0.8)	1289	13.0 (0.9)	<0.001	8.4
40-59	1390	13.3 (0.9)	1634	15.1 (0.9)	1967	20.8 (0.9)	2147	22.4 (0.9)	2179	22.5 (0.9)	2311	27.2 (0.9)	<0.001	13.9
≥60	629	22.3 (1.7)	791	23.8 (1.5)	950	30.2 (1.5)	1072	31.2 (1.4)	1176	31.7 (1.4)	1345	35.7 (1.3)	<0.001	13.4
Region														
Urban	1269	13.1 (1.0)	1553	13.1 (0.9)	1670	15.0 (1.0)	1664	16.2 (1.0)	1598	16.7 (1.0)	1652	18.5 (1.1)	<0.001	6.4
Rural	2813	8.1 (0.5)	2753	10.9 (0.6)	3220	14.6 (0.7)	3056	15.9 (0.7)	3081	16.0 (0.7)	3293	21.7 (0.8)	<0.001	13.6

<sup>a</sup> Linear trends in the prevalence of overweight, general obesity and abdominal obesity were tested using logistic regression model adjusted for sex, age and region.

<sup>b</sup> 2009-1993

Overweight and general obesity were defined as a BMI from 25kg/m<sup>2</sup> to 29.99 kg/m<sup>2</sup> and a BMI≥30 kg/m<sup>2</sup>, respectively. Abdominal obesity was defined as a WC≥102cm for men and ≥88cm for women.