

Online Supplemental Material

Supplemental Table 1. Obesity Related Factors Available in the Indonesian Family Life Survey

		1993	1997	2000	2007	2014
Household-Level Factors						
Urbanization	Urban/Rural	*	*	*	*	*
Wealth	Asset type	*	*	*	*	*
Expenditures	Soda, snacks, cooking oil, rice	*	*	*	*	*
Family Size	Number in household	*	*	*	*	*
Individual-Level Factors						
Adults						
Demographics	Age, Gender, Marital Status	*	*	*	*	*
Education	Highest education attained	*	*	*	*	*
Employment	Worked in last week, occupation	*	*	*	*	*
Parity	Among ever married women	*	*	*	*	*
Smoking	Ever smoker, currently smoking	*	*	*	*	*
Physical Activity	Vigorous, moderate, walking, last 7d	---	---	---	*	*
Children						
Demographics	Age, gender	*	*	*	*	*
Parental Characteristics	Education, employment, overweight	*	*	*	*	*
Early Life Nutrition ¹	Ever breastfed, exclusively breastfed	*	*	*	*	*
Diet						
Instant noodles	Days per week, mean number days	---	---	---	---	*
Soft drink (e.g. coca cola, sprite)	Days per week, mean number days	---	---	---	---	*
Fried snacks (e.g. tempe, tahu)	Days per week, mean number days	---	---	---	---	*
Fast Food	Days per week, mean number days	---	---	---	---	*
Staple Foods (e.g. rice, eggs)	Days per week, mean number days	---	---	*	*	*
Anthropometry and Health						
Height		*	*	*	*	*
Weight		*	*	*	*	*
Waist Circumference		---	---	*	*	*
Blood Pressure		---	*	*	*	*
Pulse		---	*	*	*	*
Medication Use		---	---	*	*	*
Dried Blood Spots ¹		---	---	---	*	*

* data are available in given year --- data not available

¹ Queried among ever married women for children they had in the last 5 years

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Supplemental Table 2. Percent Distribution of Selected Characteristics Among Overweight Children Aged 0-5 in Indonesia Over Time

	1993 ¹		1997 ¹		2000 ¹		2007 ¹		2014 ¹		
	n	%	n	%	n	%	n	%	n	%	
Age (years)											
0-2	58	76.6	88	81.5	145	72.2	301	72.7	230	62.4	
3-5	20	23.4	21	18.5	47	27.8	107	27.3	133	37.6	
Gender											
Boys	40	52.7	56	47.9	112	58.2	236	55.1	210	57.7	
Girls	38	47.3	109	52.1	80	41.8	172	44.9	153	42.3	
Ever Breastfed ²											
No	4	5.4	0	0	3	2.4	11	3.2	10	2.7	
Yes	46	94.6	25	100.0	132	97.6	350	96.8	318	97.3	
Exclusively Breastfed ²											
No	49	95.4	23	88.9	131	96.1	332	92.8	274	84.4	
Yes	1	4.6	2	11.1	4	3.9	29	7.2	54	19.6	
Complementary Foods ²											
< 6 mo or ≥ 8 mo	41	94.8	21	100	110	96.2	290	91.2	247	55.8	
≥ 6 mo to < 8 mo	1	5.2	0	0	4	3.8	31	8.8	51	44.2	
Parental Education ³											
No Education	9	17.0	19	18.0	20	11.6	24	8.1	11	3.9	
Primary	31	61.1	53	57.4	98	51.4	118	35.1	96	33.0	
Junior or Senior	12	17.7	18	17.5	56	29.3	169	45.3	156	47.3	
University	3	4.2	7	7.0	14	7.7	44	11.5	56	15.8	
Parental Employment ³											
Not working	30	58.1	77	71.0	118	61.2	230	57.8	185	53.7	
Agriculture	5	9.3	5	3.8	18	11.3	35	9.6	22	5.6	
Skilled Manual ⁴	9	16.1	9	8.6	13	7.3	36	9.0	24	7.3	
Skilled ⁵	11	16.5	17	16.5	39	20.2	103	23.5	130	33.4	
Maternal Overweight											
Not Overweight	33	79.5	88	85.1	158	88.3	288	73.3	198	58.7	
Overweight	10	20.5	15	14.9	23	11.7	104	26.7	149	41.3	
Residence											
Rural	46	70.6	56	55.6	91	49.0	151	44.2	123	39.2	
Urban	32	29.4	53	44.4	101	51.0	257	55.8	240	60.8	
Wealth											

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Lowest	26	39.8	20	20.7	39	22.1	114	31.6	56	18.8
Second	7	7.2	15	14.8	37	21.0	80	22.4	69	25.0
Middle	12	17.0	27	25.2	34	19.9	60	19.3	43	16.3
Fourth	19	28.3	15	14.6	31	19.2	53	15.2	65	22.5
Highest	13	7.7	24	24.7	29	17.7	46	11.4	52	17.4

Family Size

≤ 4	26	22.1	30	26.9	86	46.9	167	41.1	195	54.2
> 4	52	77.9	79	73.1	106	53.1	241	58.9	168	45.8

¹Overweight is defined as weight-for-height z-score > 2 using the MGRS Standard. Percentages are weighted to be representative of the population of Indonesia in the given survey year

²Breastfeeding data are reported by the mother retrospectively. Exclusively breastfed indicates whether the child was only given breastmilk (no water or complementary foods) when the child was aged 0-6 months. Complementary foods indicate appropriate timing of complementary foods, that is, the introduction of complementary foods when the child was 6-8 months old.

³Parental characteristics are of the mother, when available. When not available the characteristic is based on the father's data

⁴Skilled manual labor combines the following employment sectors: mining, manufacturing, electric, gas, water maintenance, and construction

⁵Skilled labor combines the following employment sectors: retail and service, transportation

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Supplemental Table 3. Percent Distribution of Selected Characteristics Among Overweight Children Aged 6-12 in Indonesia Over Time

	1993 ¹		1997 ¹		2000 ¹		2007 ¹		2014 ¹		
	n	%	n	%	n	%	n	%	n	%	
Age (years)											
6-9	113	55.6	183	58.6	206	59.0	495	59.0	760	53.3	
10-12	48	44.4	90	41.4	91	41.0	200	41.0	332	46.7	
Gender											
Boys	77	44.0	144	51.4	166	54.5	387	55.1	601	53.4	
Girls	84	56.0	132	48.6	133	45.5	310	44.9	492	46.6	
Parental Education ²											
No Education	10	7.5	126	27.3	42	15.2	51	9.1	46	5.4	
Primary	69	70.5	49	51.9	135	44.4	230	40.4	282	32.5	
Junior or Senior	23	13.0	15	14.9	91	30.5	237	37.3	441	45.4	
University	14	8.9	254	5.8	25	9.9	85	13.3	182	16.8	
Parental Employment ²											
Not Working	53	46.3	162	61.0	132	44.0	317	45.3	448	42.9	
Agriculture	6	6.9	32	11.3	42	14.1	76	12.9	91	9.7	
Skilled Manual ³	19	17.8	11	4.4	33	13.2	54	8.1	79	7.9	
Skilled ⁴	36	29.0	63	23.3	87	28.7	232	33.7	442	39.5	
Maternal Overweight											
Not Overweight	60	68.9	184	72.3	186	66.2	356	56.2	454	44.9	
Overweight	38	31.1	73	27.7	96	33.8	289	43.8	541	55.1	
Residence											
Rural	61	56.7	129	53.8	112	39.9	255	45.3	298	37.0	
Urban	100	43.3	146	46.2	187	60.1	442	54.7	795	63.0	
Wealth											
Lowest	30	22.2	50	22.3	36	13.1	87	15.4	129	16.3	
Second	17	16.1	37	14.4	44	18.1	142	26.0	160	21.4	
Middle	36	20.5	44	19.6	45	20.4	75	13.0	141	19.3	
Fourth	29	18.9	45	20.3	48	20.6	139	25.1	173	21.1	
Highest	47	22.3	62	23.4	66	27.9	120	20.6	181	21.8	
Family Size											
≤ 4	49	35.4	65	22.5	114	39.4	222	32.3	621	58.6	
> 4	112	64.6	211	77.5	185	60.6	475	67.7	472	41.4	

¹Overweight is defined as body mass index-for-age z-score > 1 using the WHO Reference. Percentages are weighted to be representative of the population of Indonesia in the given survey year

²Parental characteristics are of the mother, when available. When not available the characteristic is based on the father's data

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³ Skilled manual labor combines the following employment sectors: mining, manufacturing, electric, gas, water maintenance, and construction

⁴ Skilled labor combines the following employment sectors: retail and service, transportation

Supplemental Table 4. Percent Distribution of Selected Characteristics Among Overweight Children Aged 13-18 in Indonesia Over Time

	1993 ¹		1997 ¹		2000 ¹		2007 ¹		2014 ¹		
	n	%	n	%	n	%	n	%	n	%	
Age (years)											
13-15	45	67.9	84	53.9	98	47.6	301	48.5	280	54.1	
16-18	9	32.0	74	46.1	131	52.4	107	51.5	262	45.9	
Gender											
Boys	40	52.2	90	44.9	95	35.8	150	40.7	333	48.9	
Girls	43	47.8	121	55.1	179	64.2	217	59.3	374	51.1	
Parental Education²											
No Education	7	10.8	48	27.4	45	19.5	36	10.9	36	6.5	
Primary	46	72.0	96	53.7	136	56.3	164	54.6	240	42.2	
Junior or Senior	9	8.0	34	15.4	47	17.0	93	27.2	265	41.0	
University	3	9.2	7	3.5	14	7.2	23	7.3	72	10.3	
Parental Employment²											
Not Working	38	64.9	112	56.8	91	36.8	132	39.9	277	45.3	
Agriculture	2	4.3	14	8.1	39	16.6	43	13.7	64	11.0	
Skilled Manual ³	4	3.2	11	4.9	15	7.4	30	9.2	46	8.3	
Skilled ⁴	21	27.6	59	30.2	97	39.2	129	37.2	260	35.3	
Maternal Overweight											
Not Overweight	28	57.2	110	54.3	132	56.3	173	54.2	256	40.7	
Overweight	29	42.8	90	45.7	108	43.7	155	45.8	371	59.3	
Household Level											
Residence											
Rural	20	39.7	69	37.9	114	45.5	134	42.4	204	39.5	
Urban	63	60.3	142	62.1	160	54.5	233	57.6	503	60.5	
Wealth											
Lowest	11	14.6	26	15.2	38	16.5	46	16.6	118	23.8	
Second	5	3.3	28	13.5	40	20.0	71	25.6	119	24.0	
Middle	18	30.2	44	27.8	47	21.2	33	12.5	80	16.1	
Fourth	19	21.3	29	17.4	37	15.3	65	23.4	86	18.2	
Highest	29	30.6	47	26.1	58	26.9	63	21.8	103	17.9	
Family Size											
≤ 4	21	29.0	31	17.0	92	36.1	74	21.9	353	54.6	
> 4	62	71.0	180	83.0	182	63.9	293	78.1	354	45.4	

¹ Overweight is defined as body mass index-for-age z-score > 1 using the WHO Reference. Percentages are weighted to be representative of the population of Indonesia in the given survey year

² Parental characteristics are of the mother, when available. When not available the characteristic is based on the father's data

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³ Skilled manual labor combines the following employment sectors: mining, manufacturing, electric, gas, water maintenance, and construction

⁴ Skilled labor combines the following employment sectors: retail and service, transportation

Supplemental Table 5. Univariable Logistic Regression Models Investigating the Associations Between Selected Characteristics and Overweight Among Adults in Indonesia in 2014

	Women ^{1,2}		Men ^{1,2}	
	n	Odds Ratio (95% CI)	n	Odds Ratio (95% CI)
Age (years)				
19-29	4,350	Reference	3,680	Reference
30-39	4,217	2.23 (2.01, 2.46) *	3,981	1.95 (1.72, 2.22) *
40-49	2,807	2.93 (2.62, 3.27) *	2,766	2.41 (2.10, 2.76) *
50-59	2,053	2.26 (2.00, 2.56) *	1,748	2.09 (1.79, 2.44) *
60+	1,858	1.04 (0.91, 1.19)	1,612	0.95 (0.79, 1.13) *
Education				
No Education	1,033	Reference	381	Reference
Primary	4,912	2.89 (2.42, 3.45) *	4,192	2.44 (1.61, 3.70) *
Junior or Senior	4,894	2.98 (2.49, 3.55) *	4,901	4.30 (2.85, 6.49) *
University	1,581	2.90 (2.36, 3.55) *	1,487	8.48 (5.55, 12.94) *
Smoking Status				
Non-Smoker	14,772	Reference	4,552	Reference
Smoker	434	0.57 (0.45, 0.72) *	9,165	0.47 (0.43, 0.52) *
Marital Status				
Never Married	1,560	Reference	2,436	Reference
Married	11,549	3.37 (2.88, 3.95) *	10,780	2.04 (1.78, 2.34) *
Other	2,172	1.78 (1.48, 2.14) *	565	1.10 (0.82, 1.46)
Employment				
Not Working	5,713	Reference	1,291	Reference
Agriculture	2,355	0.73 (0.64, 0.82) *	3,565	0.63 (0.52, 0.77) *
Skilled Manual ³	1,312	0.94 (0.81, 1.09)	2,886	1.06 (0.88, 1.28)
Skilled ⁴	5,644	1.46 (1.33, 1.60) *	5,799	2.03 (1.71, 2.41) *
Physical Activity in the Last Week⁵:				
No Vigorous Activity	13,001	Reference	8,360	Reference
Vigorous Activity	1,556	0.94 (0.82, 1.07)	4,762	0.69 (0.62, 0.77) *
No Moderate Activity	6,015	Reference	6,126	Reference
Moderate Activity	8,542	1.18 (1.09, 1.28) *	6,996	0.98 (0.89, 1.07)
No Walking	4,706	Reference	3,628	Reference

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	Walking	9,851	0.98 (0.90, 1.07)	9,494	1.00 (0.90, 1.11)
Consumed in the Last Week:					
<i>Instant Noodles</i>					
	No	5,125	Reference	4,428	Reference
	Yes	9,425	1.10 (1.01, 1.19) *	8,685	1.03 (0.93, 1.14)
<i>Fast Food</i>					
	No	12,902	Reference	11,825	Reference
	Yes	1,648	1.18 (1.04, 1.34) *	1,288	1.55 (1.34, 1.80) *
<i>Soda</i>					
	No	12,620	Reference	9,838	Reference
	Yes	1,930	1.05 (0.93, 1.19)	3,275	1.13 (1.01, 1.25) *
<i>Fried Snacks</i>					
	No	5,253	Reference	4,468	Reference
	Yes	9,297	1.26 (1.16, 1.37) *	8,645	1.22 (1.10, 1.35) *
Mean Number of Days Consumed in the Last Week ⁶ :					
	Instant Noodles	9,425	1.00 (0.97, 1.03)	8,685	0.95 (0.92, 0.98) *
	Fast Food	1,648	0.99 (0.91, 1.08)	1,288	0.96 (0.83, 1.11)
	Soda	1,930	1.01 (0.93, 1.09)	3,275	0.95 (0.90, 1.01)
	Fried Snacks	9,297	1.04 (0.99, 1.06)	8,645	1.01 (0.99, 1.04)
Food Expenditures ⁷					
<i>Rice</i>					
	Lowest	7,946	Reference	7,165	Reference
	Highest	7,315	1.14 (1.05, 1.23) *	6,583	0.99 (0.90, 1.08)
<i>Cooking oil</i>					
	Lowest	9,192	Reference	8,391	Reference
	Highest	6,067	1.25 (1.15, 1.36) *	5,355	1.34 (1.21, 1.47) *
Residence					
	Rural	6,242	Reference	5,688	Reference
	Urban	9,043	1.39 (1.29, 1.51) *	8,097	1.92 (1.74, 2.12) *
Wealth					
	Lowest	2,818	Reference	2,879	Reference
	Second	2,538	1.22 (1.06, 1.39) *	2,528	1.25 (1.07, 1.47) *

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Middle	1,829	1.19 (1.03, 1.38) *	1,863	1.40 (1.18, 1.66) *
Fourth	2,129	1.14 (0.99, 1.32)	2,104	1.54 (1.31, 1.81) *
Highest	1,998	1.19 (1.03, 1.36) *	1,956	2.16 (1.85, 2.52) *

Family Size

≤ 4	9,542	Reference	8,590	Reference
> 4	5,743	0.96 (0.89, 1.04)	5,195	0.97 (0.88, 1.07)

CI = confidence interval

¹ Overweight is defined as body mass index ≥ 25 kg/m²² Odds ratios and confidence intervals are estimated using logistic regression and are weighted to account for the survey design. Models exclude women who are currently pregnant.³ Skilled manual labor combines the following employment sectors: mining, manufacturing, electric, gas, water maintenance, and construction⁴ Skilled labor combines the following employment sectors: retail and service, transportation⁵ Defined using the International Physical Activity Questionnaire⁶ Modelled as a continuous variable, the average number of days consumed is queried if the respondent reported that they consumed item during the last week⁷ Indicates the household level expenditure on each item as a percentage of the households' total expenditures on food* $p < 0.05$

Supplemental Table 6. Univariable Logistic Regression Models Investigating the Associations Between Selected Characteristics and Overweight Among Children in Indonesia in 2014

	6 months - 5 years ¹		6-12 years ²		13-18 years ²	
	n	Odds Ratio (95% CI)	n	Odds Ratio (95% CI)	n	Odds Ratio (95% CI)
Mean Age ³	4,965	0.88 (0.80, 0.97) *	7,012	1.06 (1.02, 1.10) *	4,868	0.87 (0.83, 0.92) *
Gender						
Boys	2,585	Reference	3,601	Reference	2,462	Reference
Girls	2,380	0.75 (0.59, 0.96) *	3,411	0.87 (0.76, 1.01)	2,406	1.20 (1.01, 1.44) *
Ever Breastfed ⁴						
No	140	Reference		na		na
Yes	4,429	1.15 (0.53, 2.47)		na		na
Exclusively Breastfed ⁴						
No	3,646	Reference				
Yes	923	0.82 (0.59, 1.15)		na		na
Introduction of Complementary Foods ⁴						
< 6 months or ≥ 8 months	3,379	Reference		na		na
≥ 6 months to < 8 months	840	0.82 (0.58, 1.16)		na		na
Parental Education ⁵						
No Education	251	Reference	419	Reference	353	Reference
Primary	1,562	1.39 (0.65, 2.98)	2,449	1.11 (0.76, 1.61)	1,904	1.26 (0.83, 1.91)
Junior or Senior	2,055	1.69 (0.80, 3.59)	2,690	1.70 (1.17, 2.46) *	1,555	1.73 (1.14, 2.63) *
University	564	2.29 (1.04, 5.05) *	686	3.00 (2.01, 4.47) *	331	2.13 (1.31, 3.46) *

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Parental Employment⁵

Not Working	2,564	Reference	2,804	Reference	1,729	Reference
Agriculture	569	0.51 (0.30, 0.86) *	1,111	0.50 (0.38, 0.65)	737	0.51 (0.37, 0.71) *
Skilled Manual ⁶	325	0.98 (0.60, 1.60)	559	0.81 (0.61, 1.08)	394	0.72 (0.50, 1.04)
Skilled ⁷	1,469	1.22 (0.94, 1.59)	2,399	1.22 (1.04, 1.43) *	1,550	0.94 (0.76, 1.15)

Maternal Overweight

Not Overweight	3,068	Reference	3,864	Reference	2,459	Reference
Overweight	1,664	1.31 (1.02, 1.67) *	2,597	2.03 (1.75, 2.37) *	1,835	2.18 (1.80, 2.64) *

Consumed in the Last Week:

Instant Noodles

No	2,002	Reference	1,616	Reference	581	Reference
Yes	2,613	0.69 (0.53, 0.90) *	5,382	1.03 (0.87, 1.23)	2,076	1.03 (0.78, 1.36)

Fast Food

No	3,941	Reference	5,669	Reference	2,209	Reference
Yes	674	1.39 (1.01, 1.93) *	1,329	1.43 (1.21, 1.69) *	448	1.13 (0.85, 1.50)

Soda

No	4,342	Reference	5,942	Reference	2,011	Reference
Yes	273	0.89 (0.50, 1.59)	1,056	1.17 (0.97, 1.42)	646	1.09 (0.84, 1.41)

Fried Snacks

No	2,393	Reference	2,531	Reference	825	Reference
Yes	2,222	0.83 (0.64, 1.08)	4,467	1.12 (0.96, 1.31)	1,832	0.99 (0.78, 1.26)

Mean Number of Days

Consumed in the Last Week⁸:

Instant Noodles	2,613	1.00 (0.91, 1.10)	5,382	0.99 (0.95, 1.03)	2,076	0.99 (0.93, 1.05)
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Fast Food	674	0.88 (0.74, 1.05)	1,329	0.91 (0.83, 1.00)	448	0.90 (0.77, 1.05)
Soda	2,222	0.89 (0.51, 1.55)	1,056	1.05 (0.96, 1.16)	646	1.10 (0.98, 1.24)
Fried Snacks	3,671	0.97 (0.89, 1.05)	4,467	0.98 (0.94, 1.01)	1,832	0.97 (0.92, 1.03)
Food Expenditures⁹						
<i>Rice</i>						
Lowest	2,469	Reference	3,334	Reference	2,151	Reference
Highest	2,489	1.15 (0.91, 1.46)	3,662	0.86 (0.75, 1.00)	2,704	0.93 (0.78, 1.11)
<i>Cooking oil</i>						
Lowest	2,992	Reference	3,993	Reference	2,785	Reference
Highest	1,966	1.23 (0.97, 1.57)	3,002	1.16 (1.00, 1.34)	2,071	1.11 (0.93, 1.33)
Residence						
Rural	2,083	Reference	2,915	Reference	1,969	Reference
Urban	2,882	1.57 (1.22, 2.02) *	4,097	2.01 (1.72, 2.35) *	2,899	1.71 (1.42, 2.07) *
Wealth						
Lowest	1,008	Reference	1,247	Reference	876	Reference
Second	964	1.37 (0.91, 2.06)	1,193	1.50 (1.14, 1.98) *	802	1.12 (0.83, 1.52)
Middle	654	1.25 (0.79, 1.98)	908	1.78 (1.34, 2.36) *	566	1.06 (0.76, 1.48)
Fourth	783	1.42 (0.93, 2.15)	1,037	1.64 (1.25, 2.15) *	617	1.08 (0.77, 1.51)
Highest	656	1.37 (0.89, 2.11)	993	1.83 (1.39, 2.40) *	617	1.12 (0.82, 1.54)
Family Size						
≤ 4	2,645	Reference	3,523	Reference	2,322	Reference
> 4	2,320	0.99 (0.78, 1.26)	3,489	0.75 (0.65, 0.87) *	2,546	0.83 (0.70, 0.99) *

CI = confidence interval; na = not applicable

¹ Overweight is defined as weight-for-height z-score > 2 using the MGRS Standard, estimated using logistic regression models and are weighted to account for the survey design

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² Overweight is defined as BMI z-score > 1 using the WHO reference, estimated using logistic regression models and are weighted to account for the survey design

³ Modelled as a continuous variable

⁴ Breastfeeding data are reported by the mother retrospectively. Exclusively breastfed indicates whether the child was only given breastmilk (no water or complementary foods) when the child was aged 0-6 months. Complementary foods indicate appropriate timing of complementary foods, that is, the introduction of complementary foods when the child was 6-8 months old.

⁵ Parental characteristics are of the mother, when available. When not available the characteristic is based on the father's data

⁶ Skilled manual labor combines the following employment sectors: mining, manufacturing, electric, gas, water maintenance, and construction

⁷ Skilled labor combines the following employment sectors: retail and service, transportation

⁸ Modelled as a continuous variable, the average number of days consumed is queried if the respondent reported that they consumed item during the last week

⁹ Indicates the household level expenditure on each item as a percentage of the households' total expenditures on food

Supplemental Table 7. Longitudinal Associations Between Selected Characteristics and Overweight Among Adult Women Aged 19 + in Indonesia 1993-2014

		Risk Ratio (95% Confidence Interval)	
		Univariate ^{1,2}	Multivariable ^{1,2}
		Risk Ratio (95% CI)	Risk Ratio (95% CI)
Age (years)	N=29,541		
	19-29	Reference	Reference
	30-39	2.00 (1.85, 2.17) *	1.75 (1.56, 1.97) *
	40-49	2.33 (2.16, 2.51) *	2.02 (1.80, 2.27) *
	50-59	1.85 (1.71, 2.00) *	1.76 (1.56, 1.98) *
	60+	1.09 (1.00, 1.19) *	1.39 (1.21, 1.59) *
Education	N=25,970		
	No Education	Reference	Reference
	Primary	2.05 (1.89, 2.23) *	1.63 (1.47, 1.80) *
	Junior or Senior	2.00 (1.82, 2.18) *	1.60 (1.42, 1.80) *
	University	2.03 (1.81, 2.28) *	1.53 (1.32, 1.78) *
Smoking Status	N=28,967		
	Non-Smoker	Reference	Reference
	Smoker	0.58 (0.51, 0.66) *	0.75 (0.65, 0.87) *
Marital Status	N=29,055		
	Never Married	Reference	Reference
	Married	3.03 (2.63, 3.49) *	2.25 (1.81, 2.81) *
	Other	2.01 (1.73, 2.34) *	1.60 (1.25, 2.06) *
Employment	N=28,726		
	Not Working	Reference	Reference
	Agriculture	0.72 (0.67, 0.77) *	0.77 (0.71, 0.84) *
	Skilled Manual ³	0.90 (0.82, 0.98) *	0.93 (0.84, 1.04)
	Skilled ⁴	1.30 (1.23, 1.36) *	1.13 (1.07, 1.20) *
Food Expenditures ⁵			
	<i>Rice</i>		
	Lowest	Reference	Reference
	Highest	1.12 (1.07, 1.17) *	1.00 (0.95, 1.06)
	<i>Soda</i>		
	Lowest	Reference	Reference
	Highest	1.26 (1.19, 1.33) *	1.13 (1.06, 1.21) *

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	<i>Snacks</i>	N=29,057		
	Lowest		Reference	Reference
	Highest		1.20 (1.15, 1.25) *	1.03 (0.98, 1.09)
	<i>Cooking oil</i>	N=29,172		
	Lowest		Reference	Reference
	Highest		1.31 (1.25, 1.37) *	1.17 (1.11, 1.23) *
Residence		N=29,537		
	Rural		Reference	Reference
	Urban		1.49 (1.43, 1.56) *	1.31 (1.24, 1.39) *
Wealth		N=23,055		
	Lowest		Reference	Reference
	Second		1.21 (1.11, 1.31) *	1.16 (1.06, 1.26) *
	Middle		1.26 (1.16, 1.36) *	1.17 (1.07, 1.27) *
	Fourth		1.37 (1.26, 1.48) *	1.21 (1.11, 1.32) *
	Highest		1.40 (1.30, 1.52) *	1.17 (1.07, 1.27) *
Family Size		N=29,540		
	≤ 4		Reference	Reference
	> 4		1.08 (1.03, 1.13) *	0.93 (0.88, 0.99) *

CI = confidence interval

¹ Overweight is defined as body mass index ≥ 25 kg/m²² Risk Ratios and confidence intervals are estimated using a modified Poisson model and are weighted to account for the survey design. Excludes pregnant women. N =18,018 in multivariable model³ Skilled manual labor combines the following employment sectors: mining, manufacturing, electric, gas, water maintenance, and construction⁴ Skilled labor combines the following employment sectors: retail and service, transportation⁵ Indicates the household level expenditure on each item as a percentage of the households' total expenditures on food* $p < 0.05$

Supplemental Table 8. Longitudinal Association Between Selected Characteristics and Overweight Among Adult Men Aged 19 + in Indonesia 1993-2014

		Univariate ^{1,2}	Multivariable ^{1,2}
		Risk Ratio (95% CI)	Risk Ratio (95% CI)
Age	N=24,169		
	19-29 y	Reference	Reference
	30-39 y	2.18 (1.90, 2.50) *	1.74 (1.32, 2.28) *
	40-49 y	2.64 (2.32, 3.00) *	2.04 (1.57, 2.66) *
	50-59 y	2.18 (1.92, 2.47) *	1.90 (1.46, 2.48) *
	60+ y	1.13 (0.98, 1.30)	1.24 (0.94, 1.65)
Education	N=21,072		
	No Education	Reference	Reference
	Primary	2.26 (1.74, 2.94) *	1.56 (1.17, 2.08) *
	Junior or Senior	4.06 (3.11, 5.29) *	2.39 (1.77, 3.22) *
	University	6.80 (5.18, 8.94) *	2.82 (2.07, 3.85) *
Smoking Status	N=23,764		
	Non-smoker	Reference	Reference
	Smoker	0.54 (0.50, 0.58) *	0.66 (0.60, 0.72) *
Marital Status	N=23,846		
	Never Married	Reference	Reference
	Married	2.07 (1.80, 2.38) *	1.87 (1.38, 2.53) *
	Other	1.35 (1.02, 1.78) *	1.41 (0.85, 2.33)
Employment	N=23,463		
	Not Working	Reference	Reference
	Agriculture	0.65 (0.55, 0.76) *	0.60 (0.50, 0.72) *
	Skilled Manual ³	1.19 (1.02, 1.38) *	0.92 (0.76, 1.10)
	Skilled ⁴	2.10 (1.85, 2.39) *	1.30 (1.12, 1.52) *
Food Expenditures ⁵			
	<i>Rice</i>	N=23,310	
	Lowest	Reference	na
	Highest	1.01 (0.93, 1.09)	na
	<i>Soda</i>	N=22,283	
	Lowest	Reference	Reference
	Highest	1.56 (1.43, 1.71) *	1.15 (1.05, 1.27) *

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	<i>Snacks</i>	N=23,703		
	Lowest		Reference	Reference
	Highest		1.58 (1.46, 1.71) *	1.11 (1.01, 1.22) *
	<i>Cooking oil</i>	N=23,797		
	Lowest		Reference	Reference
	Highest		1.55 (1.44, 1.68) *	1.23 (1.12, 1.34) *
Residence		N=24,168		
	Rural		Reference	Reference
	Urban		1.97 (1.82, 2.14) *	1.27 (1.15, 1.40) *
Wealth		N=21,036		
	Lowest		Reference	Reference
	Second		1.26 (1.09, 1.46) *	1.10 (0.94, 1.29) *
	Middle		1.56 (1.35, 1.80) *	1.30 (1.12, 1.52) *
	Fourth		1.79 (1.56, 2.06) *	1.30 (1.12, 1.51) *
	Highest		2.44 (2.14, 2.79) *	1.39 (1.20, 1.62) *
Family Size		N=24,169		
	≤ 4		Reference	Reference
	> 4		1.11 (1.02, 1.20) *	1.02 (0.93, 1.12)

CI = confidence interval; na = not applicable

¹ Overweight is defined as BMI ≥ 25 kg/m²

² Risk Ratios and confidence intervals are estimated using a modified Poisson model and are weighted to account for the survey design. N=16,519 in multivariable model

³ Skilled manual labor combines the following employment sectors: mining, manufacturing, electric, gas, water maintenance, and construction

⁴ Skilled labor combines the following employment sectors: retail and service, transportation

⁵ Indicates the household level expenditure on each item as a percentage of the households' total expenditures on food

* $p < 0.05$