

**Table S1. Distribution of smoking status, sex and age, and availability of regional adiposity phenotypes, in each of the 29 studies**

Study	Total N	Never smokers	Ex smokers	Current smokers	% male	Median age	Weight	Height	Waist	Hip	Arm	TSF	SSF	Fat mass	Fat free mass	Leptin	Adiponectin
1958 BC	5,022	2,353	1,449	1,220	50	42	*	*	*	*	*						
ALSPAC children	1,664	1,336	0	328	48	17.8	*	*						*	*		
ALSPAC mothers	1,530	1,004	395	131	0	48	*	*	*	*	*						
BRHS	3,576	1,040	2,072	464	100	68	*	*	*	*	*	*	*	*	*	*	*
BWHHS	3,615	2,043	1,180	392	0	68	*	*	*	*	*					*	*
Caerphilly	1,155	226	592	337	100	62	*	*	*	*							
CHDS	614	313	136	165	50	30	*	*	*	*							
CoLaus	4,305	1,817	1,393	1,095	43	53	*	*	*	*				*	*	*	*
Dan-MONICA	2,245	642	575	1,028	51	54	*	*	*	*	*			*	*		
EFSOCH	1,214	749	228	238	44	32	*	*	*	*	*	*	*				
ELSA	4,978	1,726	2,551	701	46	65	*	*	*	*							
Finrisk	20,368	9,755	5,493	5,120	46	51	*	*	*	*							

GEMINAKA R	1,120	556	185	379	48	38	*	*	*	*		*	*		*	*
Generatio n Scotland	7,294	3,893	2,421	980	41	57	*	*	*	*		*	*			
GOYA males	765	759	108	148	0	45	*	*	*	*			*	*	*	*
GOYA females	1,015	172	213	380	100	38	*	*	*							
HBCS	1,626	703	551	372	43	61	*	*	*	*			*	*	*	*
Health 2006	3,211	1,382	1,078	751	44	50	*	*	*	*			*	*		
Health 2008	624	280	221	123	44	47	*	*	*	*			*	*		
HUNT	55,476	24,302	14,144	17,030	48	47	*	*	*	*	*					
Inter 99	5,399	1,986	1,427	1,986	49	45	*	*	*	*					*	*
Midspan	2,099	994	574	531	45	45	*	*	*	*						
NFBC 1966	3,729	1,763	577	1,389	50	31	*	*	*	*						
NFBC 1986	1,171	752	0	419	48	16	*	*	*	*						
NHANES	2,045	987	616	442	38 <sup>1</sup>	43 <sup>1</sup>	*	*	*	*	*	*	*	*		
NSHD	1,751	776	639	336	48	53	*	*	*	*	*				*	*

NTR	3,718	1,822	1,081	815	36	39	*	*	*	*				
PROSPER	5,145	1,761	2,022	1,362	48	74	*	*					*	*
Whitehall II (phase 3)	2,836	1,383	1,088	365	75	48	*	*	*	*				
Whitehall II (phase 7)	2,921	1,426	1,278	217	77	59						*	*	

1. Weighted values from survey data