

## APPENDIX

### 1. METHODS

#### A. LONGITUDINAL COHORT ANALYSES

The British National Childhood Development Study (NCDS) is a nationally representative birth cohort which followed all UK children born in 1 week in 1958 (n=17,638) and followed them up frequently till age 50 years (2008). Self-report data on smoking status and age of smoking initiation were provided at each adolescent and adult wave. Data were available on smoking initiation and adult smoking at 33 years (n=8923), 42 years (8948) and 50 years (7776).<sup>1</sup>

The U.S. National Longitudinal Study of Adolescent to Adult Health (Add Health) is a nationally representative longitudinal cohort which recruited young people in grades 7-12 during 1994-95 (wave 1) and followed them up 3 times, most recently in 2007-08 (age 24-34 years, wave 4). Self-report data on smoking habits were provided at each wave and data on age of initiation provided in wave 4. The weighted nationally-representative sample with data on smoking initiation and smoking at wave 4 was 14,675.<sup>2</sup>

The 1982 Pelotas birth cohort study enrolled all children born in a medium-size city in southern Brazil in 1982 (n=5914) and followed them to age 30 years (2012-13), with self-report data on smoking habits provided at ages 18, 22-23 and 30 years. Pelotas data on adolescent smoking and smoking at age 30 years were available in 3646 participants. The Pelotas cohort is unique amongst LMIC in its breadth, low attrition rate and length of follow-up into adult life.<sup>3</sup>

The Victorian Adolescent Health Cohort Study (VAHCS) is a cohort study that recruited nearly 2000 adolescents aged 14-16 years in Victoria, Australia, in 1992. Participants were followed up in 6 waves during adolescence (14-20 years) and 4 waves in young adulthood, with wave 10 in 2013 at a mean age of 35 years (33 to 40 years). At each wave, participants provided data on current smoking habits and in wave 10 on age of smoking initiation. Data were available on smoking during adolescence and smoking at wave 10 in 1348 participants.<sup>4</sup>

Smoking in adolescence was defined as any regular smoking approximately weekly or more often in the NCDS, Pelotas and VAHCS and daily smoking in Add Health (smoking > 20 days a month). Age at initiation in all cohorts was grouped as <20 years (subgroups ≤16 years or 17 to 19 years) or ≥20 years. Adult daily smoking was defined as regular smoking ≥1 cigarette per day in the NCDS, Pelotas and VAHCS cohorts and >25 days per month in Add Health. We defined adult heavy smoking as regular consumption of ≥20 cigarettes per day in all cohorts. In NCDS, due to its very lengthy follow-up, we defined persistent smokers as those who were regular smokers in 2 out of 3 waves from age 33 to 50 years.

Socioeconomic variables used included: NCDS: father's social class in adolescence and own social class in adulthood ii) Add Health: household income in wave 4; iii) Pelotas: socioeconomic level categorized into five groups; iv) VAHCS: highest educational level achieved by wave 10.

Add Health analyses were weighted with so that Wave 4 findings are nationally representative.<sup>5</sup> Other cohorts were analysed unweighted.

#### B. GLOBAL ADULT TOBACCO SURVEY (GATS)

GATS is a household-based survey designed to obtain nationally representative data in low-income and middle-income countries for the tobacco use behaviours of civilian, non-institutionalised individuals aged 15 years and older. Sample sizes varied because of resource availability and individual country needs. Residents from all regions of every nation were eligible to be sampled, apart from those living in remote or dangerous areas, as determined by each country's implementing agency. A minimum sample size of 8000 households in each country was recommended so that any prevalence estimate of less than 40% would have a 95% margin of error of no greater than 3 percentage points. Data were obtained by face-to-face interview. Each GATS country used a stratified multistage cluster sampling design in which the probability of a given cluster being selected was proportional to its population size. Multiple households in

selected areas were selected at random. In each selected household, the electronic handheld device that was used for household rostering and data collection used a random number generator to identify one household member to be interviewed.<sup>6</sup>

Analyses were undertaken separately for each country using the svy commands in Stata 13 allowing for the stratified cluster sampling design and weighting of the survey in each country.

### *C. GLOBAL DATA ON YOUTH SMOKING PREVALENCE*

Data were obtained from the Global Health Observatory of the World Health Organization (accessed 19 February 2015) on current prevalence of adolescent smoking. The indicator (youth smoking rate) was current users of any tobacco product, defined as self-reported use of any tobacco product in the last 30 days in young people aged 13-15 years, with data taken predominantly from the Global Youth Tobacco Surveys (GYTS).<sup>7</sup>

Data indicate the percentage of the total youth population aged 13 – 15 years who are current tobacco users, defined as those that consumed any smokeless or smoking tobacco product at least once during the last 30 days prior to the survey ([http://apps.who.int/gho/indicatorregistry/App\\_Main/view\\_indicator.aspx?iid=1298](http://apps.who.int/gho/indicatorregistry/App_Main/view_indicator.aspx?iid=1298)).

## 2. ADDITIONAL TABLES AND FIGURES

**Table A1. British 1958 birth cohort: Associations between adolescent smoking and any daily adult smoking in the NCDS (1958 British Birth Cohort) at ages 33 and 42 years**

Table shows proportions of regular (any daily cigarettes) smokers at 33, 42 and 50 years of age by smoking status in adolescence (whether initiated being a regular smoker any time in adolescence (10-19 years), initiated  $\leq 16$  years or initiated 17-19 years). For each initiation period, the Table then shows the proportion of adult smokers at that age who initiated regular smoking in adolescence, the risk ratio (RR) for being an adult smoker related to adolescence smoking, the adolescent attributable fraction (AAF) for adult smoking, and the adjusted AAF (adjusted for socioeconomic status in adolescence and adulthood and sex).

AGE		Initiated <20 years			Initiated $\leq 16$ years			Initiated 17-19 years		
		Smoker	Non-smoker	Total	Smoker	Non-smoker	Total	Smoker	Non-smoker	Total
33 years	Smoker	2085	683	2768	1680	908	2588	405	825	1230
				(31.0%)			(30.2%)			
	Non-smoker	1529	4626	6155	1029	4963	5992	900	4683	5183
				(69.0%)			(69.8%)			
	Total	3614	5309	8923 (100%)	2709	5871	8580 (100%)	905	5508	6413
		(40.5%)	(59.5%)		(31.6%)	(68.5%)				
	% adult smokers initiated in adolescent period	75.3%			64.9%			§		
	Risk ratio	4.5 (4.2, 4.8)			4.0 (3.8, 4.3)			3.0 (2.7, 3.3)		
	AAF	58.3%			48.7%			21.9%		
	Adjusted AAF	62.9%			48.4%			19.4%		
		(59.6, 66.0)			(45.8, 50.9)			(16.6, 22.2)		

AGE	Initiated <20 years			Initiated ≤16 years			Initiated 17-19 years			
	Smoker	Non-smoker	Total	Smoker	Non-smoker	Total	Smoker	Non-smoker	Total	
42 years	Smoker	1765	523	2288	1427	731	2158	338	659	997
				(25.7%)						
	Non-smoker	1901	4759	6660	1274	5156	6430	627	4845	5472
				(74.3%)						
	Total	3666	5282	8948 (100%)	2701	5887	8588	965	5504	6469
		(41.0%)	(59.0%)							
	% adult smokers initiated in adolescence	77.1%			66.1%			§		
	Risk ratio	4.9 (4.5, 5.3)			4.3 (3.9, 4.6)			2.9 (2.6, 3.3)		
	AAF	61.3%			50.6%			22.3%		
	Adjusted AAF	67.0%			49.7%			26.2%		
		(63.1, 70.4)			(46.5, 52.7)			(22.1, 30.5)		

Notes.

Adjusted AAF is adjusted for gender, socioeconomic status at 16 years (father's social class) and in adulthood (own social class).

Analyses for initiation 17-19 years exclude those who initiated smoking ≤16years, thus sample size is smaller.

§ Proportion initiated in adolescence not calculated as denominator excludes smokers who initiated ≤16years.

**Appendix Table A2. Mean age of smoking initiation, proportions of daily smokers who began smoking in adolescence and estimated AAFs for daily smoking for RR from 4 to 11 amongst 25-34 year old males in the GATS surveys by country**

MALES aged 25-34 years		SEAR				WPRO				AR	EMR	European region					Americas			
		Bangladesh	India	Indonesia	Thailand	China	Malaysia	Philippines	Viet Nam	Nigeria	Egypt	Poland	Romania	Russian Federation	Turkey	Ukraine	Argentina	Brazil	Mexico	Uruguay
		2009	2009	2011	2011	2010	2011	2009	2010	2012	2009	2009	2011	2009	2012	2010	2012	2008	2009	2009
Mean age of smoking initiation*	Age	17.9	18.8	17.8	17.8	20.2	17.4	17.9	19.4	19.5	17.6	17.7	17.1	17.0	17.2	17.1	17.3	17.3	16.7	16.3
	(95% CI)	(17.5, 18.3)	(18.4, 19.3)	(17.4, 18.2)	(17.4, 18.3)	(19.6, 20.8)	(16.5, 18.3)	(17.5, 18.3)	(19.0, 19.9)	(18.3, 20.6)	(17.4, 17.9)	(17.4, 18.0)	(16.4, 17.7)	(16.7, 17.3)	(16.8, 17.6)	(16.8, 17.5)	(16.6, 18.0)	(17.0, 17.5)	(16.0, 17.4)	(15.8, 16.8)
Proportion of ever smokers who initiated <20 years	%	64.7	53.5	71.0	70.5	41.0	73.2	71.9	48.3	45.8	70.9	77.3	78.3	81.4	75.0	78.2	86.8	75.2	79.5	86.3
	(95% CI)	(59.2, 69.8)	(48.5, 58.4)	(65.9, 75.7)	(65.1, 75.3)	(32.7, 50.0)	(64.6, 80.4)	(67.2, 76.1)	(42.5, 54.1)	(34.4, 57.4)	(67.7, 73.9)	(70.9, 82.6)	(68.0, 86.0)	(77.7, 84.6)	(70.0, 79.5)	(72.8, 82.8)	(75.4, 93.4)	(71.5, 78.6)	(66.5, 88.4)	(78.2, 91.7)
AAF for RR	RR=4	48.5	40.1	53.3	52.9	30.8	54.9	53.9	36.2	34.4	53.2	58.0	58.7	61.1	56.3	58.7	65.1	56.4	59.6	64.7
	(95% CI)	(44.4, 52.4)	(36.6, 43.8)	(49.4, 56.8)	(48.8, 56.5)	(24.5, 37.5)	(48.5, 60.3)	(50.4, 57.1)	(31.9, 40.6)	(25.8, 43.1)	(50.7, 55.4)	(53.2, 62)	(51, 64.5)	(58.3, 63.5)	(52.5, 59.6)	(54.6, 62.1)	(56.6, 70.1)	(53.6, 59)	(49.9, 66.3)	(58.7, 68.8)
	RR=8	56.6	46.8	62.1	61.7	35.9	64.1	62.9	42.3	40.1	62.0	67.6	68.5	71.2	65.6	68.4	76.0	65.8	69.6	75.5
(95% CI)	(51.8, 61.1)	(42.7, 51.1)	(57.7, 66.2)	(57, 65.9)	(28.6, 43.8)	(56.5, 70.4)	(58.8, 66.6)	(37.2, 47.3)	(30.1, 50.2)	(59.2, 64.6)	(62, 72.3)	(59.5, 75.3)	(68, 74)	(61.3, 69.6)	(63.7, 72.5)	(66, 81.7)	(62.6, 68.8)	(58.2, 77.4)	(68.4, 80.2)	
(95% CI)	(53.8, 63.5)	(44.4, 53.1)	(59.9, 68.8)	(59.2, 68.5)	(29.7, 45.5)	(58.7, 73.1)	(61.1, 69.2)	(38.6, 49.2)	(31.3, 52.2)	(61.5, 67.1)	(64.5, 75.1)	(61.8, 78.2)	(70.6, 76.9)	(63.6, 72.3)	(66.2, 75.3)	(68.5, 84.9)	(65, 71.5)	(60.5, 80.4)	(71.1, 83.4)	

WHO world regions: SEAR: South East Asian Region; WPRO Western Pacific Region & Oceania; AR: African Region; EMR: Eastern Mediterranean Region.

\* Estimates for 2008-2010 surveys were taken from Giovino et al. 2012, otherwise mean age was calculated from original data.

NR: Not reported due to very low sample size (n<25)

**Appendix Table A3. Mean age of smoking initiation, proportions of daily smokers who began smoking in adolescence and estimated AAFs for daily smoking for RR from 4 to 11 amongst 25-34 year old females in the GATS surveys by country**

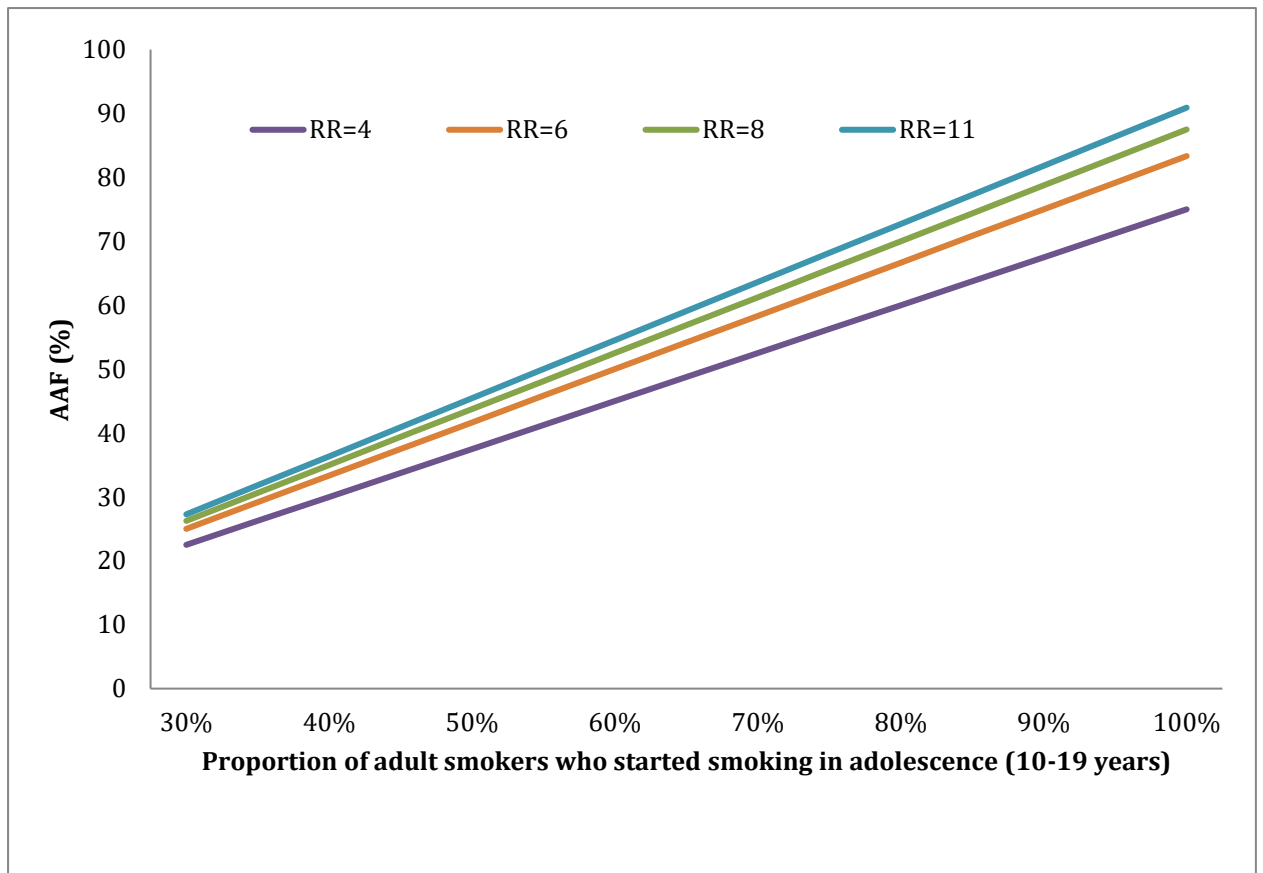
FEMALES aged 25-34 years		SEAR				WPRO				AR	EMR	European region					Americas			
		Bangladesh 2009	India 2009	Indonesia 2011	Thailand 2011	China 2010	Malaysia 2011	Philippines 2009	Viet Nam 2010	Nigeria 2012	Egypt 2009	Poland 2009	Romania 2011	Russian Federation 2009	Turkey 2012	Ukraine 2010	Argentina 2012	Brazil 2008	Mexico 2009	Uruguay 2009
Mean age of smoking initiation*	Age (95% CI)	NR	17.5 (15.7, 19.4)	NR	NR	NR	NR	NR	NR	NR	NR	18.3 (17.8, 18.7)	18.3 (17.4, 19.1)	17.5 (17.1, 18.0)	18.3 (17.7, 18.9)	19.0 (18.4, 19.6)	16.4 (14.5, 18.3)	17.6 (17.2, 17.9)	17.9 (17.0, 18.7)	17.1 (16.5, 17.7)
Proportion of ever smokers who initiated <20 years	% (95% CI)	NR	69.0 (62.4, 81.8)	NR	NR	NR	NR	NR	NR	NR	NR	69.2 (61.1, 76.3)	70.7 (57.4, 81.1)	76.1 (68.8, 82.)	66.7 (59.2, 73.5)	62.2 (52.1, 71.3)	82.4 (66.8, 91.6)	75.2 (71.5, 78.6)	77.0 (57.4, 89.3)	84.0 (74.8, 90.3)
AAF for:	RR=4 (95% CI)		51.8 (46.8, 61.4)									51.9 (45.8, 57.2)	53.0 (43.1, 60.8)	57.1 (51.6, 61.5)	50.0 (44.4, 55.1)	46.7 (39.1, 53.5)	61.8 (50.1, 68.7)	56.4 (53.6, 59)	57.8 (43.1, 67)	63.0 (56.1, 67.7)
	RR=8 (95% CI)		60.4 (54.6, 71.6)									60.6 (53.5, 66.8)	61.9 (50.2, 71)	66.6 (60.2, 71.8)	58.4 (51.8, 64.3)	54.4 (45.6, 62.4)	72.1 (58.5, 80.2)	65.8 (62.6, 68.8)	67.4 (50.2, 78.1)	73.5 (65.5, 79)
	RR=11 (95% CI)		62.7 (56.7, 74.4)									62.9 (55.5, 69.4)	64.3 (52.2, 73.7)	69.2 (62.5, 74.5)	60.6 (53.8, 66.8)	56.5 (47.4, 64.8)	74.9 (60.7, 83.3)	68.4 (65.0, 71.5)	70.0 (52.2, 81.2)	76.4 (68.0, 82.1)

WHO world regions: SEAR: South East Asian Region; WPRO Western Pacific Region & Oceania; AR: African Region; EMR: Eastern Mediterranean Region.

\* Estimates for 2008-2010 surveys were taken from Giovino et al. 2012. For country surveys not included in that paper, mean age was calculated from original data.

NR: Not reported due to very low sample size (n<25)

**Appendix Figure A1. AAFs for adult smoking by the proportion of adult smokers who initiated regular smoking <20 years of age and the relative risk (RR) of adult smoking relative to adolescent smoking**



**Appendix Table A4. Current youth smoking: prevalence (%) of use of any tobacco products in the last 30 days amongst 13-15 year olds in 155 countries**

Year	Region code	WHO region	Code	Country	Female	Male
2010	AFR	Africa	DZA	Algeria	5.7	25.5
2010	AFR	Africa	AGO	Angola	-	-
2010	AFR	Africa	BEN	Benin	5.8	14.6
2010	AFR	Africa	BWA	Botswana	20.5	27
2010	AFR	Africa	BFA	Burkina Faso	11.5	22.6
2010	AFR	Africa	BDI	Burundi	16.8	20.7
2010	AFR	Africa	CPV	Cabo Verde	11.7	14.7
2010	AFR	Africa	CMR	Cameroon	8.2	14
2010	AFR	Africa	CAF	Central African Republic	34.5	29.5
2010	AFR	Africa	TCD	Chad	13.9	20.9
2010	AFR	Africa	COM	Comoros	14.8	21.8
2010	AFR	Africa	COG	Congo	20.4	27.6
2010	AFR	Africa	CIV	Côte d'Ivoire	10.9	26.3
2010	AFR	Africa	COD	Democratic Republic of the Congo	29.3	36.5
2010	AFR	Africa	GNQ	Equatorial Guinea	17.3	25.1
2010	AFR	Africa	ERI	Eritrea	4.6	7.8
2010	AFR	Africa	ETH	Ethiopia	4.9	9.9
2010	AFR	Africa	GAB	Gabon	-	-
2010	AFR	Africa	GMB	Gambia	36.6	34
2010	AFR	Africa	GHA	Ghana	10.6	14.1
2010	AFR	Africa	GIN	Guinea	20	30.8
2010	AFR	Africa	GNB	Guinea-Bissau	10.3	11.5
2010	AFR	Africa	KEN	Kenya	14.5	14.9
2010	AFR	Africa	LSO	Lesotho	21.7	26.4
2010	AFR	Africa	LBR	Liberia	11.8	14.2
2010	AFR	Africa	MDG	Madagascar	14.3	33.2
2010	AFR	Africa	MWI	Malawi	11.4	16.7
2010	AFR	Africa	MLI	Mali	8.8	23.1
2010	AFR	Africa	MRT	Mauritania	17.7	27.5
2010	AFR	Africa	MUS	Mauritius	7.7	20.3
2010	AFR	Africa	MOZ	Mozambique	7.4	12.7
2010	AFR	Africa	NAM	Namibia	29.9	31.9
2010	AFR	Africa	NER	Niger	5.6	11.8
2010	AFR	Africa	NGA	Nigeria	11.1	19.2
2010	AFR	Africa	RWA	Rwanda	9.5	13.3
2010	AFR	Africa	STP	Sao Tome and Principe	-	-
2010	AFR	Africa	SEN	Senegal	9.6	20.4
2010	AFR	Africa	SYC	Seychelles	25.3	27.1
2010	AFR	Africa	SLE	Sierra Leone	24.1	20.3
2010	AFR	Africa	ZAF	South Africa	20.1	29.3
2010	AFR	Africa	SWZ	Swaziland	8.6	15.8
2010	AFR	Africa	TGO	Togo	7.9	17.7
2010	AFR	Africa	UGA	Uganda	15.3	17.3
2010	AFR	Africa	TZA	United Republic of Tanzania	8.8	12.4
2010	AFR	Africa	ZMB	Zambia	25.6	25.7
2010	AFR	Africa	ZWE	Zimbabwe	8.2	14.9
2010	AMR	Americas	ATG	Antigua and Barbuda	15.9	24.3
2010	AMR	Americas	ARG	Argentina	29.7	26.1
2010	AMR	Americas	BHS	Bahamas	15.1	17.8
2010	AMR	Americas	BRB	Barbados	23.2	34.5
2010	AMR	Americas	BLZ	Belize	15.3	21.8

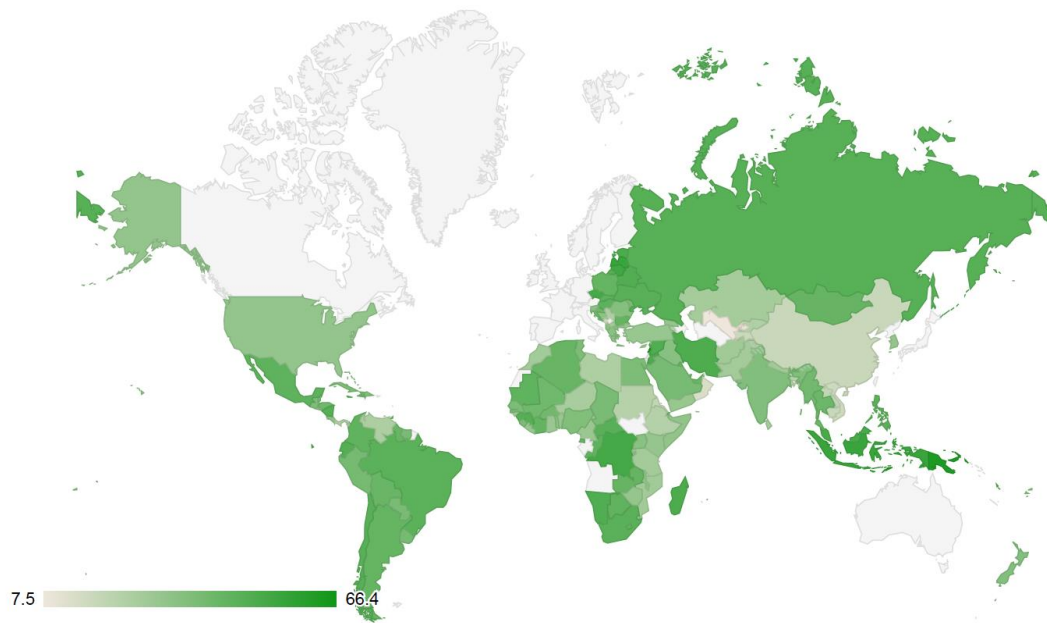


2010	AMR	Americas	BOL	Bolivia (Plurinational State of)	16.6	24.7
2010	AMR	Americas	BRA	Brazil	30.8	28.7
2010	AMR	Americas	CAN	Canada	-	-
2010	AMR	Americas	CHL	Chile	39.8	29.8
2010	AMR	Americas	COL	Colombia	27.8	27
2010	AMR	Americas	CRI	Costa Rica	13.1	15.9
2010	AMR	Americas	CUB	Cuba	15	19.8
2010	AMR	Americas	DMA	Dominica	19.8	30.4
2010	AMR	Americas	DOM	Dominican Republic	11.9	18.4
2010	AMR	Americas	ECU	Ecuador	26.1	31.2
2010	AMR	Americas	SLV	El Salvador	11	18.2
2010	AMR	Americas	GRD	Grenada	16.7	24.5
2010	AMR	Americas	GTM	Guatemala	13.3	19.7
2010	AMR	Americas	GUY	Guyana	16	25.3
2010	AMR	Americas	HTI	Haiti	23.9	21.7
2010	AMR	Americas	HND	Honduras	18.2	22.8
2010	AMR	Americas	JAM	Jamaica	24.6	31.3
2010	AMR	Americas	MEX	Mexico	28.5	27.8
2010	AMR	Americas	NIC	Nicaragua	20.5	30.4
2010	AMR	Americas	PAN	Panama	6.5	10.5
2010	AMR	Americas	PRY	Paraguay	12.9	20.8
2010	AMR	Americas	PER	Peru	16.5	21.5
2010	AMR	Americas	KNA	Saint Kitts and Nevis	7.8	10.4
2010	AMR	Americas	LCA	Saint Lucia	14.5	22.4
2010	AMR	Americas	VCT	Saint Vincent and the Grenadines	16.6	22
2010	AMR	Americas	SUR	Suriname	16.6	20.7
2010	AMR	Americas	TTO	Trinidad and Tobago	17.8	20.8
2010	AMR	Americas	USA	United States of America	11.1	15.4
2010	AMR	Americas	URY	Uruguay	24.5	21.4
2010	AMR	Americas	VEN	Venezuela (Bolivarian Republic of)	7.2	11
2010	EMR	Eastern Mediterranean	AFG	Afghanistan	3.2	13.1
2010	EMR	Eastern Mediterranean	BHR	Bahrain	11.7	28
2010	EMR	Eastern Mediterranean	DJI	Djibouti	14.3	22.7
2010	EMR	Eastern Mediterranean	EGY	Egypt	3.8	20
2010	EMR	Eastern Mediterranean	IRN	Iran (Islamic Republic of)	19.5	32.9
2010	EMR	Eastern Mediterranean	IRQ	Iraq	15.2	17.7
2010	EMR	Eastern Mediterranean	JOR	Jordan	19.4	34.1
2010	EMR	Eastern Mediterranean	KWT	Kuwait	11.3	25
2010	EMR	Eastern Mediterranean	LBN	Lebanon	54.1	65.8
2010	EMR	Eastern Mediterranean	LBY	Libya	5	11
2010	EMR	Eastern Mediterranean	MAR	Morocco	8.2	12.5
2010	EMR	Eastern Mediterranean	OMN	Oman	1.7	4.9
2010	EMR	Eastern Mediterranean	PAK	Pakistan	7.5	12.4
2010	EMR	Eastern Mediterranean	QAT	Qatar	13.1	25.2
2010	EMR	Eastern Mediterranean	SAU	Saudi Arabia	9.1	21.2
2010	EMR	Eastern Mediterranean	SOM	Somalia	12.3	15.5
2010	EMR	Eastern Mediterranean	SDN	Sudan	4.3	9.5
2010	EMR	Eastern Mediterranean	SYR	Syrian Arab Republic	18.9	31.9
2010	EMR	Eastern Mediterranean	TUN	Tunisia	3.8	20.1
2010	EMR	Eastern Mediterranean	ARE	United Arab Emirates	13.2	25.2
2010	EMR	Eastern Mediterranean	YEM	Yemen	10.5	14.5
2010	EUR	Europe	ALB	Albania	6.7	17.6
2010	EUR	Europe	AND	Andorra	-	-
2010	EUR	Europe	ARM	Armenia	4.3	10.9
2010	EUR	Europe	AUT	Austria	-	-

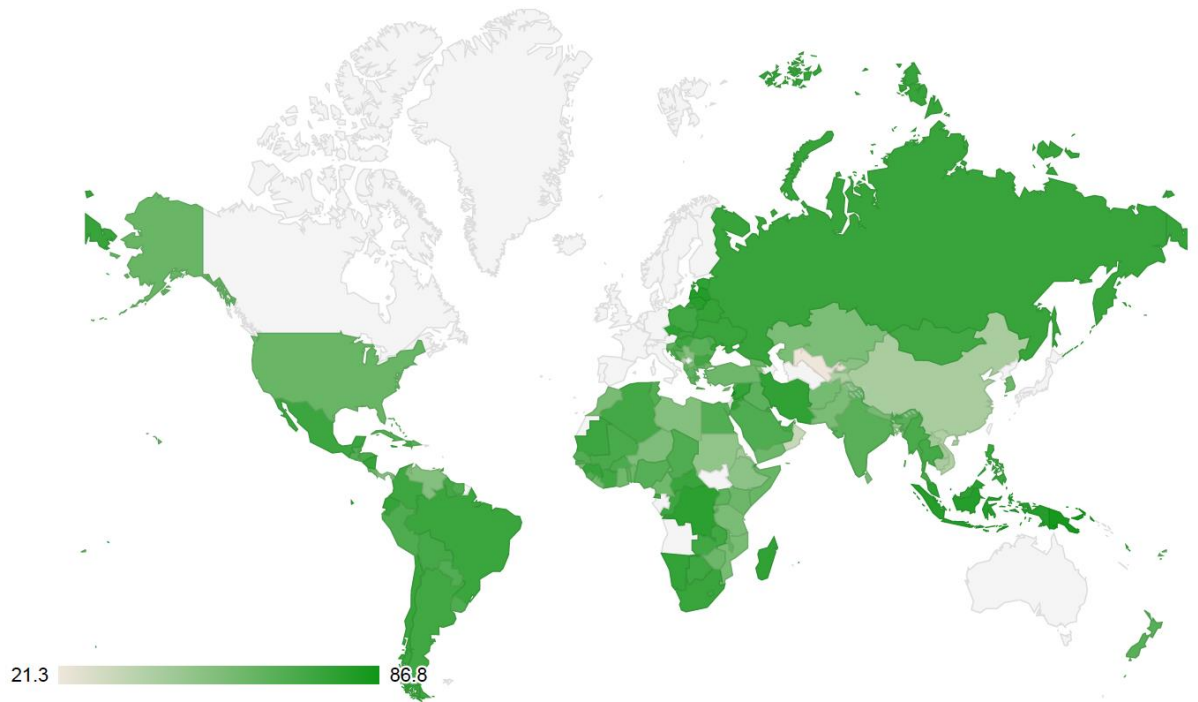
2010	EUR	Europe	AZE	Azerbaijan	-	-
2010	EUR	Europe	BLR	Belarus	22.2	31.6
2010	EUR	Europe	BEL	Belgium	-	-
2010	EUR	Europe	BIH	Bosnia and Herzegovina	10.5	16.3
2010	EUR	Europe	BGR	Bulgaria	31.8	26.4
2010	EUR	Europe	HRV	Croatia	25.6	23.3
2010	EUR	Europe	CYP	Cyprus	8.4	13.2
2010	EUR	Europe	CZE	Czech Republic	34.1	35.8
2010	EUR	Europe	DNK	Denmark	-	-
2010	EUR	Europe	EST	Estonia	27.8	33.8
2010	EUR	Europe	FIN	Finland	-	-
2010	EUR	Europe	FRA	France	-	-
2010	EUR	Europe	GEO	Georgia	2.8	15.2
2010	EUR	Europe	DEU	Germany	-	-
2010	EUR	Europe	GRC	Greece	14.4	17.1
2010	EUR	Europe	HUN	Hungary	26.7	27.9
2010	EUR	Europe	ISL	Iceland	-	-
2010	EUR	Europe	IRL	Ireland	-	-
2010	EUR	Europe	ISR	Israel	-	-
2010	EUR	Europe	ITA	Italy	-	-
2010	EUR	Europe	KAZ	Kazakhstan	7.8	12.2
2010	EUR	Europe	KGZ	Kyrgyzstan	4.4	10.3
2010	EUR	Europe	LVA	Latvia	33.9	41.8
2010	EUR	Europe	LTU	Lithuania	28.8	38.4
2010	EUR	Europe	LUX	Luxembourg	-	-
2010	EUR	Europe	MLT	Malta	-	-
2010	EUR	Europe	MCO	Monaco	-	-
2010	EUR	Europe	MNE	Montenegro	5.9	6.6
2010	EUR	Europe	NLD	Netherlands	-	-
2010	EUR	Europe	NOR	Norway	-	-
2010	EUR	Europe	POL	Poland	31.7	26
2010	EUR	Europe	PRT	Portugal	-	-
2010	EUR	Europe	MDA	Republic of Moldova	7.1	20.8
2010	EUR	Europe	ROU	Romania	10.4	18.4
2010	EUR	Europe	RUS	Russian Federation	24.4	30.1
2010	EUR	Europe	SMR	San Marino	-	-
2010	EUR	Europe	SRB	Serbia	9.6	10.8
2010	EUR	Europe	SVK	Slovakia	24.5	28.5
2010	EUR	Europe	SVN	Slovenia	24.2	16.9
2010	EUR	Europe	ESP	Spain	-	-
2010	EUR	Europe	SWE	Sweden	-	-
2010	EUR	Europe	CHE	Switzerland	-	-
2010	EUR	Europe	TJK	Tajikistan	2.8	6.8
2010	EUR	Europe	MKD	The former Yugoslav republic of Macedonia	11.7	11.9
2010	EUR	Europe	TUR	Turkey	7.4	14.4
2010	EUR	Europe	TKM	Turkmenistan	-	-
2010	EUR	Europe	UKR	Ukraine	22.2	29.8
2010	EUR	Europe	GBR	United Kingdom of Great Britain and Northern Ireland	-	-
2010	EUR	Europe	UZB	Uzbekistan	1.6	2.7
2010	SEAR	South-East Asia	BGD	Bangladesh	5.1	9.1
2010	SEAR	South-East Asia	BTN	Bhutan	11.6	27.6
2010	SEAR	South-East Asia	PRK	Democratic People's Republic of Korea	-	-
2010	SEAR	South-East Asia	IND	India	8.3	19
2010	SEAR	South-East Asia	IDN	Indonesia	6.2	41

2010	SEAR	South-East Asia	MDV	Maldives	3.4	8.5
2010	SEAR	South-East Asia	MMR	Myanmar	8.2	22.5
2010	SEAR	South-East Asia	NPL	Nepal	5.3	13
2010	SEAR	South-East Asia	LKA	Sri Lanka	5.8	12.4
2010	SEAR	South-East Asia	THA	Thailand	7.5	24
2010	SEAR	South-East Asia	TLS	Timor-Leste	53.4	60.2
2010	WPR	Western Pacific	AUS	Australia	-	-
2010	WPR	Western Pacific	BRN	Brunei Darussalam	-	-
2010	WPR	Western Pacific	KHM	Cambodia	3	7.2
2010	WPR	Western Pacific	CHN	China	4.1	7.1
2010	WPR	Western Pacific	COK	Cook Islands	36.3	33.7
2010	WPR	Western Pacific	FJI	Fiji	10.1	17.5
2010	WPR	Western Pacific	JPN	Japan	-	-
2010	WPR	Western Pacific	KIR	Kiribati	-	-
2010	WPR	Western Pacific	LAO	Lao People's Democratic Republic	3.9	7.8
2010	WPR	Western Pacific	MYS	Malaysia	9.4	35.1
2010	WPR	Western Pacific	MHL	Marshall Islands	-	-
2010	WPR	Western Pacific	FSM	Micronesia (Federated States of)	39.8	51.9
2010	WPR	Western Pacific	MNG	Mongolia	16	25.7
2010	WPR	Western Pacific	NRU	Nauru	-	-
2010	WPR	Western Pacific	NZL	New Zealand	21.5	18.7
2010	WPR	Western Pacific	NIU	Niue	-	-
2010	WPR	Western Pacific	PLW	Palau	42.4	58.3
2010	WPR	Western Pacific	PNG	Papua New Guinea	40.3	55.4
2010	WPR	Western Pacific	PHL	Philippines	17.5	28.3
2010	WPR	Western Pacific	KOR	Republic of Korea	10.6	14.9
2010	WPR	Western Pacific	WSM	Samoa	20.4	25.8
2010	WPR	Western Pacific	SGP	Singapore	7.5	10.5
2010	WPR	Western Pacific	SLB	Solomon Islands	-	-
2010	WPR	Western Pacific	TON	Tonga	-	-
2010	WPR	Western Pacific	TUV	Tuvalu	32.7	41.6
2010	WPR	Western Pacific	VUT	Vanuatu	19.6	34.1
2010	WPR	Western Pacific	VNM	Viet Nam	1.5	6.5

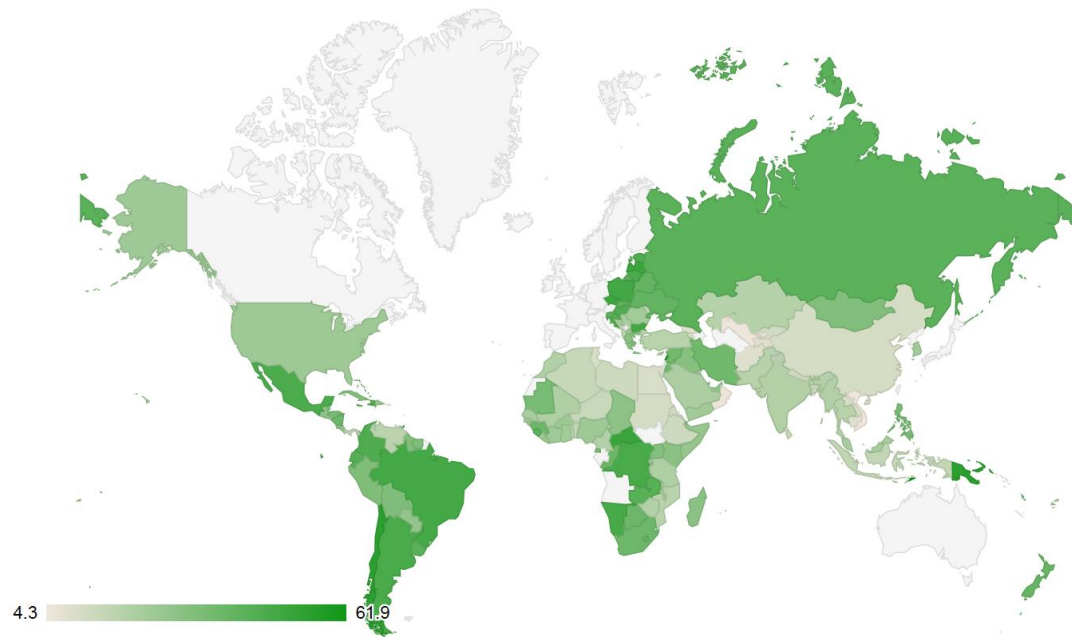
**Figure A2. Estimates of AAF for males in 155 countries calculated from current smoking prevalence amongst 13-15 year olds and an RR of 4**



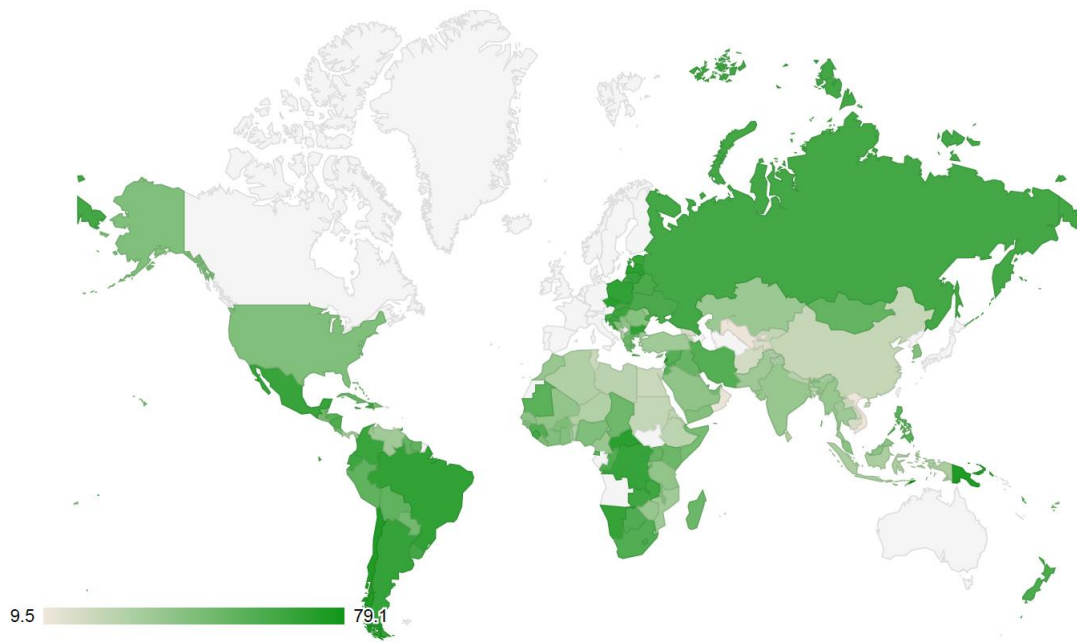
**Figure A3. Estimates of AAF for males in 155 countries calculated from current smoking prevalence amongst 13-15 year olds and an RR of 11**



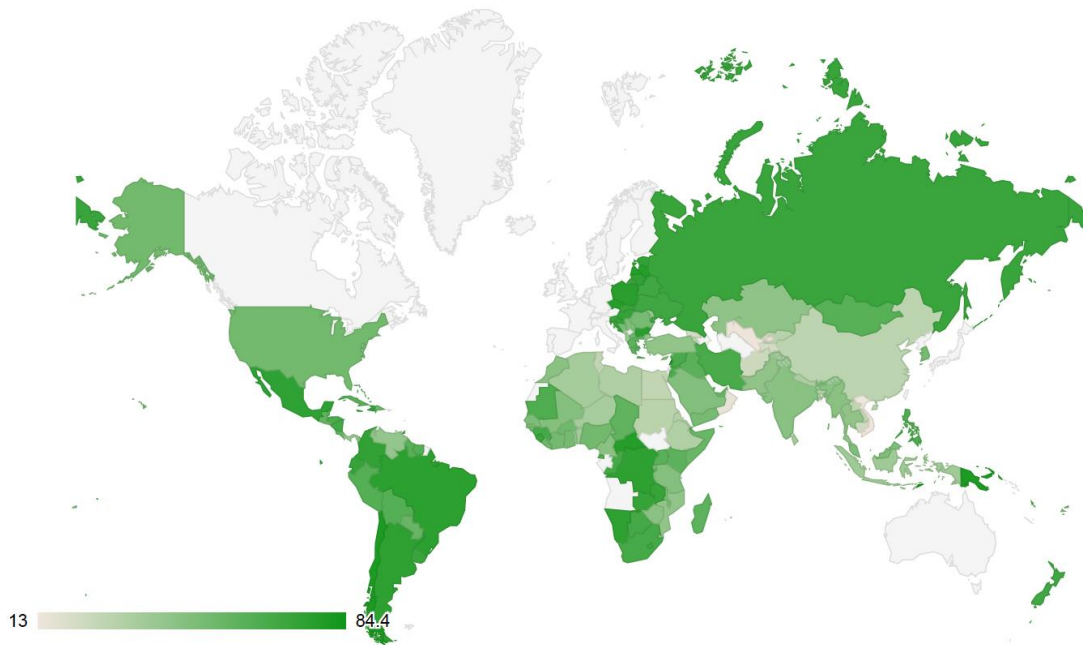
**Figure A4. Estimates of AAF for females in 155 countries calculated from current smoking prevalence amongst 13-15 year olds and an RR of 4.**



**Figure A5. Estimates of AAF for females in 155 countries calculated from current smoking prevalence amongst 13-15 year olds and an RR of 8**

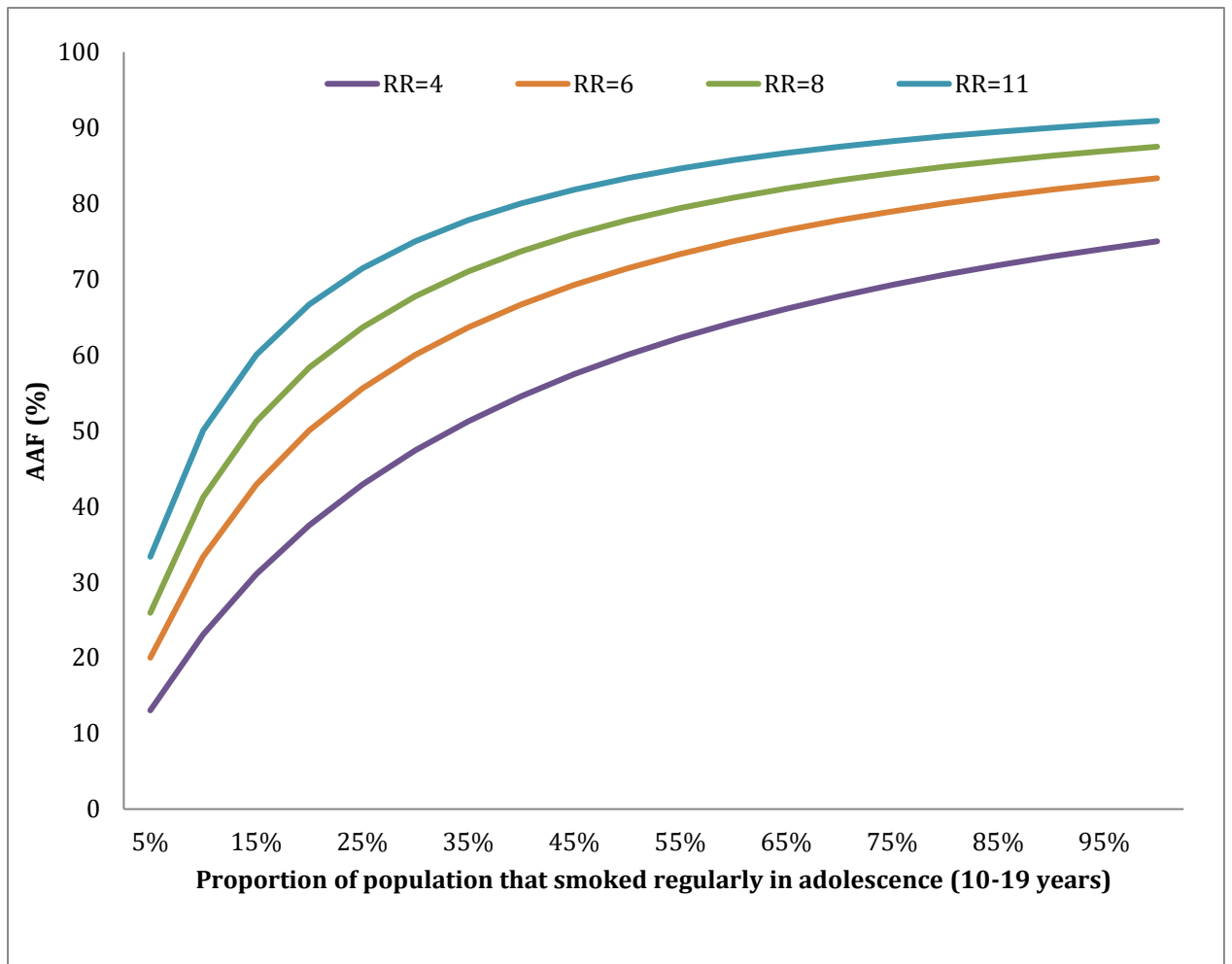


**Figure A6. Estimates of AAF for females in 155 countries calculated from current smoking prevalence amongst 13-15 year olds and an RR of 11**





**Appendix Figure A7. AAFs for adult smoking by proportion of the population who smoke regularly in adolescence and the relative risk (RR) of adult smoking relative to adolescent smoking**



## References

1. Elliot J, Vaitilingam R. Now we are 50: Key findings from the National Child Development Study. London: Centre for Longitudinal Studies, Institute of Education, University of London, 2008.
2. National Longitudinal Study of Adolescent Health (Add Health). University of North Carolina: Carolina Population Centre; 2005.
3. Barros FC, Victora CG, Horta BL, Gigante DP. [Methodology of the Pelotas birth cohort study from 1982 to 2004-5, Southern Brazil]. *Revista de saude publica* 2008; **42 Suppl 2**: 7-15.
4. Patton GC. 2000 stories: The Victorian Adolescent Health Cohort Study. <http://www.mcrci.edu.au/research/research-projects/2000stories/> (accessed 10 August 2014).
5. Brownstein F, Kalsbeek WD, Tabor J, Entzel P, Daza E, Harris KM. Non-Response in Wave IV of the National Longitudinal Study of Adolescent Health, 2013.
6. Kalsbeek WD, Bowling JM, Hsia J, Mirza S, Palipudi KM, Asma S. The Global Adult Tobacco Survey (GATS): sample design and related methods, 2010.
7. Warren CW, Jones NR, Eriksen MP, Asma S. Patterns of global tobacco use in young people and implications for future chronic disease burden in adults. *Lancet* 2006; **367**(9512): 749-53.