

A comparison of smoking prevalence and quitting between countries
which use either Virginia or blended tobacco cigarettes

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EXECUTIVE SUMMARY

Introduction

Comparisons were made of current smoking prevalence, ex-smoking prevalence, quit ratio (percent ex-smokers of ever smokers), quit rate and measures of starting to smoke between samples drawn from countries with a predominantly flue-cured Virginia cigarette market and countries with a predominantly blended cigarette market. Countries with a major use of black-tobacco cigarettes, handrolled cigarettes, charcoal filter cigarettes, cigarettes with a hollow cardboard mouthpiece, or snus were excluded.

Results based on national smoking statistics

Analyses based on national smoking statistics, comparing three Virginia and four blended cigarette countries, summarize and extend results presented in *Inhalation Toxicology* in 2009 (21; 404-430), and present comparisons by sex, age group and time period from 1971-1975 to 2001-2005. Current smoking prevalence was generally lower for blended in 1971-1980, but the difference reversed over time, so that it was generally lower for Virginia in 1991-2005. However differences by cigarette type were never statistically significant at $p < 0.05$. Although ex-smoking prevalence showed no significant differences by type for any age group in either sex up to 1991-95, it was significantly lower for blended in various sex/age group combinations in 1996-2000. Quit ratios and quit rates showed quite similar differences to those for ex-smoking prevalence. Although the pattern of results is consistent with faster declines in current smoking prevalence in Virginia cigarette countries, these analyses are limited by the relatively small number of countries considered, and the variability of the estimates between countries.

Results based on studies in adults conducted in multiple countries

The MONICA (MONItoring of trends and determinants in Cardiovascular disease) study

This study was conducted in men and women aged 25-64 or 35-64 in 32 centres in 21 countries using a standardised protocol, with independent survey waves conducted in 1983-85, 1988-90 and 1993-95. After exclusions, five centres were classified as Virginia and 18 as blended. Comparisons are presented by sex and 10-year age group

and, for current smoking prevalence, ex-smoking prevalence and quit ratios, also by survey wave. Quit rate estimates are derived from changes in current smoking prevalence between 1983-85 and 1993-1995 in successive age groups. For each smoking statistic, large differences between centres within cigarette type meant that few differences between cigarette types were significant (at $p < 0.05$).

Current smoking prevalence in men generally reduced over time, and was somewhat lower in Virginia cigarette centres than in blended cigarette centres at ages 25-44 (significant in three of six of the comparisons by age group and survey wave). However, little difference was evident in men aged 45-64 or women aged 25-44, and the difference tended to be in the reverse direction in women aged 45-64. Ex smoking prevalence generally increased over time. There were no significant differences by cigarette type for men, but in women aged 45-64, ex-smoking prevalences were significantly higher for Virginia in five of six comparisons. Quit ratios were generally higher for Virginia than blended, but never significantly so. For quit rates, there was no consistent direction of difference, with no difference significant.

The Eurobarometer surveys

Surveys are conducted twice a year of EU nationals age 15+ in each EU Member State, only four of which are classified as Virginia. Sex-specific results are presented for EB43 (1995), which included an extensive smoking questionnaire with emphasis on quitting, and for EB 66 (2006) and EB72 (2009), for which information on quitting was more limited. Also included are some multivariate analyses for sexes combined data, based on supplementary “Flash” survey EB 253 (2008).

In EB43 men, Virginia, compared to blended, was associated, in all age groups, with lower current smoking prevalence, higher ex-smoking prevalence, quit ratio and unsuccessful quit attempts, and a similar quit rate, wish or intention to stop (or stop or cut down) and length of latest quit attempt, though differences were hardly ever significant. In EB43 women, where significant differences were more evident, the differences varied by age. In younger women, significant differences seen included an increase for Virginia in the wish to stop (or stop or cut down) and in the prevalence of short-term unsuccessful quit attempts in current smokers, and in the prevalence of multiple previous unsuccessful quit attempts in ex-smokers. In older women, Virginia

was associated with higher current smoking prevalence, quit rate, unsuccessful quit attempts in ex-smokers, and shorter period of latest quit attempt in current smokers.

In EB66 men, comparing Virginia to blended, prevalence of current smoking was lower, the quit ratio was higher, and the prevalence of recent quit attempts in current smokers higher. Little evidence of a difference by cigarette type was seen for EB66 women.

No differences were noted for any of the statistics studied in EB72, available only for the sexes combined.

Nor were any significant differences noted in smoking prevalence for sexes combined based on Flash EB253, whether or not adjustment was made using a multivariate analysis for other independent predictors.

Results based on studies in adolescents conducted in multiple countries

The HBSC (Health Behaviour in School-Aged Children) study

This study, which concerns schoolchildren aged 11, 13 and 15 started in the early 1980s, the latest reported phase, in 2005-06, conducted in 41 countries. Our analysis concerns waves conducted in 1997-98, 2001-02, and 2005-06. Among boys, prevalence of ever smoking was generally significantly lower for Virginia for all age/wave combinations. Prevalence of current weekly smoking was also lower for Virginia at age 15, but not at ages 11 and 13. Prevalence of current daily smoking was also lower for Virginia at age 15, but at younger ages some differences in the opposite direction were seen. Among girls, all three prevalences were generally higher for Virginia, though only some differences were significant. Exceptionally, no differences were evident at age 15 in later waves, and prevalence of ever smoking was lower for Virginia at age 11 in 2005/06.

The model of Hublet *et al.* was used for a more detailed study of prevalence of smoking in 2005/06 in boys and girls aged 15. In the absence of other variables, prevalence in boys was lower for Virginia than blended, while prevalence in girls was non-significantly higher for Virginia. However, when the other predictors of smoking prevalence were included in the model, there was no association with cigarette type in either boys or girls.

At ages 11 and 13, rates of progression from ever to weekly smoking and from ever to daily smoking in both boys and girls were always somewhat higher for Virginia, often significantly. At age 15, rates were also generally higher for Virginia in 1997/98, but not in the later waves. Indeed, in 2001/02 progression from ever to daily smoking in boys was lower in Virginia.

Results for age of starting to smoke were only available for 15 year olds from the later two waves. No differences by cigarette type were seen in boys. In girls, the results were consistent with an earlier age of starting for Virginia, whether considering all (ever) smokers, or restricting to weekly or daily smokers, or the proportion of ever smokers at age 15 who started by age 13.

The ESPAD (European School survey Project on Alcohol and other Drugs) study

This study, conducted in schools in 1995, 1999, 2003 and 2007 in 38 countries, involved students age 15-16. Various definitions of current cigarette smoking prevalence were analyzed. For all definitions, the results for boys were generally consistent with a lower prevalence for Virginia. In girls, prevalences tended to be higher for Virginia in early waves, but lower in later waves. As judged by three alternative statistics, progression from first to regular smoking tended to be higher for Virginia than blended for both boys and girls in 1995, but subsequently this difference tended to be eliminated or even reversed. In girls, initiation of smoking tended to be earlier for Virginia for all indices studied in all four surveys. This pattern was less evident in boys in 1995 and 1999, and reversed in 2003 and 2007.

The GYTS (Global Youth Tobacco Survey) study

The GYTS, part of the Global Tobacco Surveillance System, is a school-based survey targeting 13-15 year olds. It started in 1999, being repeated about every 4 years. All schools in a geographically defined area are eligible, which may be national or focused on specific areas. Our analyses were based on latest data, and combined estimates from multiple areas in a country to give estimates for 32 Virginia and 49 blended countries. In both boys and girls, prevalence of current cigarette smoking (on at least one day during the preceding month) was clearly higher in blended than Virginia countries. The same was true, among never smokers, for an index of

susceptibility to tobacco use initiation. Desire to stop, among current smokers, was higher in Virginia countries, though more clearly for boys than girls.

Limitations of the overall evidence

Assessment of differences in smoking habit by cigarette type is limited by smokers in most countries typically smoking only one type of cigarette. The comparisons we describe between countries using Virginia and those using blended suffer from various weaknesses; they are ecological in nature, they generally ignore potential confounding variables, they are often based on few countries, particularly for those using Virginia, and the definitions of the smoking variables used may vary between studies, and within studies may vary by time or between country. Even where overall differences between cigarette types are significant, there is often considerable variation by country within cigarette type. This implies that other factors affect the smoking variable studied, suggesting that control for these variables might explain the observed differences. Countries using flue-cured Virginia cigarettes are not a random sample, but are, in most comparisons made, predominantly countries strongly connected to Great Britain. While adjustment for “Britishness” is difficult, limited results from multivariate analyses suggest that such adjustment might well affect comparisons. These considerations suggest that inferring cause-and-effect from our analyses is not justified. At best one can say that particular smoking indices are or are not associated with cigarette type.

Summary of associations

Current smoking

Most comparisons are not statistically significant, and those that are suggest that current smoking prevalence is higher for blended in men and boys, and higher for Virginia in women and girls. Such opposing associations do not suggest any meaningful effect of cigarette type on current smoking prevalence, a conclusion reinforced by the limited evidence from multivariate analyses.

Ex smoking

Though most comparisons are again not significant, those that are are all in the direction of a greater prevalence for Virginia, with the results for quit ratio and quit rates consistent with greater quitting for Virginia. Results for wishing to stop or cut down are generally in the direction of more desire to stop, and more and shorter

unsuccessful quit attempts for Virginia. While this might appear to suggest a relationship opposite to that for ex smoking, some of the indices used are difficult to interpret.

Starting to smoke

Significant differences, where seen, suggest that, in boys, age of starting is earlier, and progression from first smoking to current daily smoking faster for blended. However, for girls, age of starting is earlier, and progression faster, for Virginia. The inconsistency of association by sex is indicative of no true relationship.

Overall conclusions

The analyses presented provide no clear evidence that smoking habits are materially affected by whether the cigarette is Virginia or blended.

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1. Introduction

Based on the tobacco they include, cigarettes sold throughout the world can predominantly be divided into two main categories, namely, flue-cured (or 100% Virginia) cigarettes and blended (or American blended) cigarettes. As well as differences in the genetic varieties and curing methods of the tobacco itself, there are differences between the two types in the manufacturing process. In particular, Virginia cigarettes contain no added flavour ingredients, while blended cigarettes do. Moreover, in most countries¹ throughout the world, the cigarette market is dominated by one type or the other, this country-specific preference having changed little for many decades.

In this report, we address the question whether the two cigarette types differ in their effects on the prevalence and quitting of smoking. Because virtually all smokers within any given country smoke the same cigarette type, epidemiological studies on an individual-person basis do not provide an appropriate approach to this question.

¹ Throughout this report, the term “country” is used for convenience, but includes other entities such as territories, commonwealths, special regions and WHO administered provinces.

2 Background and methods

2.1 Cigarette types

In a recent paper [1], we described some difference between the two cigarette types. Briefly, blended cigarettes contain a blend of Virginia, burley and oriental tobaccos. These three types are genetically different from each other. Furthermore, Burley and oriental tobaccos are air cured over a period of about 6 weeks, whereas Virginia tobacco is cured over a relatively short period, generally about a week, at elevated temperatures. These differences lead to differences in chemical composition of both the tobaccos and their smoke. Both types of cigarette also contain expanded tobacco and reconstituted leaf, but no information is available as to whether this varies between manufacturers or cigarette types. Other substances added to both types include extenders, humectants, processing aids and preservatives. Virginia cigarettes contain no flavour ingredients, whereas blended cigarettes included a large number of flavourants, although each flavourant makes up only a very small percentage of the total cigarette by weight – typically less than 0.01% with the exception of menthol for which the contribution ranges up to 0.45%.

2.2 Statistics considered

The statistics considered eligible for this report are:

- prevalence of smoking – current and ex smoking are considered if available, and ever smoking otherwise.
- quit ratio – defined as the percentage of ex smokers among ever smokers.
- quit rates – defined as the percentage of current smokers at one time point who have quit smoking at the end of some given time period. This may be estimated based on the change in current smoker prevalence between the beginning and end of the period or on the change in ex-smoker prevalence or using the distribution of time quit among ex-smokers. Note that a quit rate can be negative if there has been a net increase in current smoking prevalence or decrease in ex-smoking prevalence.

- measures of starting to smoke (e.g. age of starting to smoke, proportion of experimental smokers progressing to regular smoking).

2.3 Analyses conducted – overview

In our recent paper [1], we looked at whether cigarette type affected international variation in mortality from lung cancer and COPD. An ecological approach was adopted, comparing mortality rates from the two diseases on a national basis between two groups of countries using the two cigarette types. The comparison was adjusted for smoking habits, again on a national basis. The paper included comparisons of current and ex smoking prevalence (and also of cigarette consumption per smoker) between the two groups of countries. The smoking data for each country were compiled from the wide variety of sources available. However the sources may vary substantially, both within and between countries, in the definitions of smoking used, in their methodologies, in their coverage (e.g. by age) and in the periods reported. The relevant parts of the paper are summarized in §3 below. In this report we have extended the time period covered, now including some data for 2001-2005 not previously presented, and have added data on quit ratios and quit rates.

In §4 (adults) and §5 (adolescents), we use a different approach to address the question, namely using international surveys. This approach avoids the difficulties just mentioned, but appropriate surveys are not widely available, and the range of smoking statistics, periods and countries that can be studied by this approach are limited. The studies identified are:

Adults

MONICA	Monitoring of trends and determinants in Cardiovascular disease
EB	Eurobarometer

Adolescents

HBSC	Health Behaviour in School-aged Children
ESPAD	European School Survey Project on Alcohol and Other Drugs
GYTS	Global Youth Tobacco Survey

Data are also becoming available from the GATS (Global Adult Tobacco Survey) which started in 2007 [2]. However, the only data for countries known to be using Virginia (see §2.4) are for three countries in South Asia (Vietnam, India and Bangladesh) [3]. Given the known use of non-manufactured cigarettes (“bidis”) in at least one of these (India) [4], no analysis has been attempted.

§4 and §5 of this report include description of the relevant data sources. For studies with data available over a long period, we concentrate on data relevant to the last two decades.

2.4 Sources of data on cigarette type

Data on the market share of Virginia cigarettes and of blended cigarettes in 174 countries (or regions) in 2008 were provided by Philip Morris International, and are reproduced in Annex A. For our analyses, we considered as eligible those countries with at least 75% of either type of cigarette – giving 55 countries as Virginia and 85 as blended, with the remaining 34 excluded with either mixed or other usage. The shares are believed not to have changed materially in recent decades, so the allocation is considered relevant to a wider period.

USA is not included in Annex A, but is allocated as using blended cigarettes [1]. For surveys with results available for regions within country, all regions were allocated as for the whole country.

China, which participated in MONICA and GYTS (and also GATS), was also not included in Annex A. Although we have informal information from BAT that Chinese cigarettes use Virginia tobacco, we have not included China in our analyses, considering it likely that their cigarettes are likely to be atypical of international cigarettes.

Some other countries identified as participating in relevant multinational surveys, but not shown in Annex A were also not considered in our analyses. These include the following:

ESPAD – Faroe Islands, Greenland, Monaco

HBSC – Greenland

GYTS – Belize, Bhutan, Gaza Strip, Guyana, Suriname, West Bank.

For GYTS, we also excluded the United Nations Relief and Works Agency (UNRWA) sites, and we were unable to include the Caribbean and South Pacific countries, as these are only shown combined in Annex A, with mixed usage. Central African Republic and Chad were both allocated as “Other CEMAC (Economic Community of Central African States)” (i.e. 100% Virginia).

2.5 Other countries excluded

In order to avoid possible biases, we also generally excluded from our analyses countries where a major part of the tobacco market comprises products other than manufactured cigarettes, or where there are other differences in the design of cigarettes. Decisions on which countries should be excluded were generally based on information in our report International Smoking Statistics (ISS) [5,6], and are summarized in the following paragraphs.

Use of cigarettes using other tobacco types: France, Portugal and Spain have traditionally used cigarettes of dark tobacco, and sales data in ISS indicate that it continued to comprise a substantial proportion into recent decades (e.g. France 36% and Spain 44% in 1990, no recent data for Portugal).

Although not covered by ISS, information from Davis (1990) [7] indicates that in Turkey all cigarettes used 100% Turkish-grown oriental tobacco until 1984, with both imported and Turkish manufactured blended cigarettes becoming available thereafter. Although the market share for 2008 (Annex A) is shown as 93% for blended and 0% Virginia, suggesting a share for oriental tobacco of 7% at most, it was nevertheless decided to omit Turkey.

Note that countries where there is *currently* a substantial market share of cigarettes of other tobacco types would be excluded from analysis as they cannot be allocated as either Virginia or blended – see §2.4 above.

Use of cigarettes with other design features: In Japan, a substantial proportion of cigarettes have charcoal filters [8].

In Russia and the Baltic region, cigarettes with a hollow cardboard mouthpiece were commonly smoked in the early 20th century. They were known as “pilli” in Finland and “papyrosi” in Russia. In Finland, they formed a very small proportion of all cigarettes by the 1970s (e.g. 3% in 1973, ISS). Although few data are available for recent decades, they are also believed to have fallen out of use in the Baltic States (e.g. 5% of cigarettes were unfiltered [assumed to include papyrosi] in Latvia in 2000 [9]). However they continue to be used in Russia and Ukraine (e.g. papyrosi described in 1998 as the “backbone of the Russian market” [10] and non-filter estimated as 50% of Ukrainian consumption in the 1990s, and 18% in 2005 [11]).

Use of hand-rolled cigarettes: Hand-rolled (HR) cigarettes formed a major part of tobacco consumption in many countries in the early part of the 20th century. ISS indicates that this continued through to more recent decades (i.e. more than 20% of total estimated cigarette consumption throughout the 1970s-1990s) in only three countries – Belgium, Netherlands and Norway. Although there has been a recent resurgence of HR usage in some countries, only in New Zealand did it reach similar levels (exceeding 20% before the mid-1960s and again since the mid-1990s, reaching nearly 40% in the late-2000s). Elsewhere, the rise has been more recent and did not reach such high levels (UK 20-28% since the early 2000s, Germany 20-25% since the mid-2000s), and these countries were not excluded. This picture was confirmed by recent data for EU countries from the Eurobarometer series of surveys, which, although based on small sample sizes, allow HR smoking prevalence to be estimated as a proportion of overall smoking prevalence (e.g. [12-14]).

Use of smokeless tobacco: Smokeless tobacco known as snus forms a major part of tobacco consumption in Sweden (over 20% by weight since the 1970s and currently over 50%). Although separate data are not available in all ISS countries, only in the USA (around 4-6%) is the level non-trivial.

To summarize, the following countries covered by ISS were therefore considered eligible or ineligible for analysis:

Eligible: Australia, Austria, Bulgaria, Canada, Czechoslovakia*, Denmark, Finland, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Poland, Romania, Switzerland, UK, USA, USSR* (except Russia and Ukraine), Yugoslavia*

Ineligible: Belgium, France, Japan, Netherlands, New Zealand, Norway, Portugal, Russia, Spain, Sweden, Ukraine

* and their successor countries

Three further countries relevant to MONICA, EB, ESPAD and/or HBSC were not covered by ISS. Turkey was considered ineligible, for reasons mentioned above, but Luxembourg and Malta were considered eligible, as no contrary indications could be identified. However the GYTS survey includes many more countries not covered by ISS, and the relevant data are not available from any other convenient source. Some analyses are therefore conducted without exclusion of countries using other products.

2.6 Statistical methods

Testing for differences between the cigarette-type country groups was generally carried out by simple t-tests, country (or occasionally study centre) being the unit of interest in the analysis. Other methods are explained in the relevant sections below (§4.2.5, §5.1.2).

The significance of differences is indicated by:

***	$p < 0.001$
**	$0.001 < p < 0.01$
*	$0.01 < p < 0.05$
(*)	$0.05 < p < 0.1$
NS	$p \geq 0.1$

In certain Figures, significant ($p < 0.05$) differences are indicated by a red oval.

The convention adopted is to display the Virginia countries in green, and the blended countries in yellow.

All analyses were carried out in Excel.

3 Approach based on national smoking statistics

Our original analyses published in 2009 [1] were based on a comparison between three countries with a mainly Virginia market (Australia, Canada, United Kingdom) and four countries with a mainly blended market (Austria, Denmark, Germany, United States). Results relevant to this report related to the prevalence of current smoking and of ex-smoking for 1971-2000 by sex, age, and five year period. Comparisons were carried out separately for both sexes and the age groups 35-49, 50-64 and 65-79 and for each five year period, and also for the average over periods. Table 1 (current smoking prevalence) and Table 2 (ex-smoking prevalence) include these results and also present additional results for the age group 20-34 and for the period 2001-2005. Corresponding results for additional smoking statistics are shown in Table 3 (quit ratio) and Table 4 (5-year quit rates). Note that estimates of smoking prevalence for 2001-2005 were compiled in 2006 when preparing the original report and are therefore not comprehensive. In particular, estimates for ex-smoking prevalence were not available for all the blended cigarette countries, so that useful results for this period only relate to current smoking prevalence and quit rate estimates based on differences in current smoking prevalences, where estimates are available for all the seven countries except Austria.

Current smoking prevalence (Table 1) was generally lower in blended cigarette countries in 1971-1980, but the difference reversed over time, so that it was generally lower in Virginia cigarette countries in 1991-2005. However, the differences by cigarette type were never statistically significant at $p < 0.05$, due to variations in prevalence within countries using the same type of cigarettes. The time trend towards a declining current smoking prevalence in men is also clearly evident in each country, except in Denmark.

Ex-smoking prevalence (Table 2) showed no significant differences by type for any age group in either sex up to 1991-95, but a significantly ($p < 0.05$) lower prevalence in blended countries was evident in 1996-2000 at age 20-34 in both sexes, and at age 35-49 and age 50-64 in women, with non-significant differences in the same direction seen for the other sex/age group combinations.

The results for quit ratio (Table 3) show similar differences to those for ex-smoking prevalence. Thus, no significant ($p < 0.05$) differences were seen up to 1991-1995. However, lower quit ratios were seen in both sexes in blended cigarette countries in 1996-2000, significantly at ages 20-34 and 35-49, and non-significantly for the older age groups.

Quit rates (Table 4) are also consistently lower in blended cigarette countries since 1991-1995, but only the differences for men aged 65-79 in 2001-2005 and women aged 35-49 in 1996-2000 are statistically significant ($p < 0.05$).

It should be noted that, while these analyses are consistent with a somewhat greater decline in current smoking prevalence in Virginia cigarette countries, these analyses are limited by the relatively small number of countries considered, and the variability of the estimates between countries. This is illustrated by the fact that in quite a number of cases, particularly for later periods in Tables 2 to 4, there is no overlap between the three estimates for the Virginia cigarette countries, and the four (or less) for the blended cigarette countries, but significance at $p < 0.05$ is not achieved.

4 The multinational study approach – adults

4.1 The MONICA study

The MONICA study – **MONI**toring of trends and determinants in **CA**rdiovascular disease – was conducted in the 1980s-1990s. It comprised three waves of independent cross-sectional surveys conducted in 32 centres in 21 countries using a standardised protocol. The centres were self-funding, and correspond to administrative areas for which mortality statistics are available. The centres may be areas with unusual cardiovascular mortality, and are not necessarily representative of the countries where they are situated.

The three phases of surveys were conducted in 1983-85, 1988-90 and 1993-95. The study included both sexes, and ages either 25-64 or 35-64. The sample size was at least 200 in each sex × 10-year age group. All the data used in this analysis are taken from published results [15].

As the first and final survey waves were conducted approximately 10 years apart, and the published results are available for 10-year age groups, it is possible to estimate 10-year quit rates from these data (see below), but only for survey centres which participated in both the first and final waves. For consistency, restriction has been made to these survey centres for all the smoking statistics analyzed.

After excluding centres in countries with Virginia/blended unknown (§2.4) or with substantial usage of other products (§2.5), there were 23 centres available – 5 from 3 countries using Virginia and 18 from 11 countries using blended cigarettes. These are shown in Table 5, together with the 3-letter abbreviation codes used by MONICA for the centres. Where no region is indicated, the survey was nationwide. The survey dates [16] and lower age studied are also shown.

The analyses presented here refer to daily cigarette smoking, the only definition for which results on ex-smoking are available. We have not considered results including both daily and occasional smoking because

different wordings in the questionnaires for some centres make interpretation difficult [17].

Table 6 shows the prevalence of current and ex smoking, by sex, by age and for overall (age 35-64) and by survey wave, as originally reported. The table also shows the means over centre for the Virginia and blended groups and the results of the t-tests. Figure 1 shows the individual country data for a selected sex and age group (women, 45-54), and the means by sex, age and survey wave are shown in Figures 2 (current daily cigarette prevalence) and 3 (ex prevalence), although excluding the 25-34 year old age group which is based on a smaller number of centres.

Quit ratios were calculated as:

$$\text{“ex prev”} / (\text{“current prev”} + \text{“ex prev”})$$

and are also shown in Table 6 and Figure 4.

Using results from the first and last surveys, quit rates were calculated from the current smoker prevalence data as:

$$\frac{\text{“prev at age } x \text{ in first survey”} - \text{“prev at age } x+10 \text{ in last survey”}}{\text{“prev at age } x \text{ in first survey”}}$$

It should be noted that, as the phases were conducted as separate cross-sectional surveys, different individuals were involved in each phase. However because the survey waves were conducted (at least approximately) 10 years apart, and results were reported for 10-year age groups, the two groups of individuals contributing to this estimate are drawn from the same birth-cohort. Thus the numerator represents the drop in smoking prevalence experienced by that birth cohort. The quit rates were calculated for each sex, and each age group (except the first), and results are shown in Table 7 and Figure 5. (Note that the quit rates for age 35-44 are based on fewer centres because estimates cannot be made for the centres that omitted age 25-34 in the first survey.)

For each statistic, there is very large variation between the individual centres, such that differences between the cigarette-type groups are rarely

significant. This variation is readily seen in Figures 1 and 5 which show the data for the individual centres. Current daily cigarette smoking prevalence reduced over time in Virginia and blended centres in men and in Virginia, but not blended, centres in women. In men aged 25-34 or 35-44 prevalence was somewhat lower in the Virginia centres, significantly ($p < 0.05$) in three of six of the comparisons by age group and survey wave. However, little difference was evident in men aged 45-54 or 55-64 or in women aged 25-34 or 35-44, and in women aged 45-54 or 55-64 prevalence was lower in the blended centres, though significantly ($p < 0.05$) in only one of the six comparisons.

For ex smoking prevalence again there was again substantial variation between the centres. There was a general increase over time. There were no significant differences between the Virginia and blended means for men of any age or for women aged 25-34 or 35-44. However, for women aged 45-54 or 55-64 ex-smoking prevalence was higher for Virginia, significantly ($p < 0.05$) for five of the six comparisons by age group and survey wave.

Quit ratios were generally higher for Virginia than blended, but never significantly so.

For quit rates, there was no consistent direction of difference, and none of the differences were significant.

4.2 Eurobarometer surveys

4.2.1 Background

Eurobarometer is a series of public opinion surveys conducted twice a year for the European Commission. The topics covered have included smoking habits on a number of occasions. In the sections that follow, we first look at a survey conducted in 1995 (EB43) which used an extensive questionnaire on aspects of smoking with special emphasis on quitting, and then at the results from another two recent surveys (EB66 in 2006, and EB72 in 2009) with limited information on quitting.

The surveys are conducted in each Member State of the EU (and sometimes in Candidate countries), and cover all residents age 15 or over who have any EU nationality. The sample size is 1000 in each country, except that a

separate sample of 300 is drawn in Northern Ireland (in addition to the 1000 in Great Britain), a separate sample of 1000 or 500 is drawn in the eastern parts of Germany (in addition to the 1000 in the western part), and the samples in some smaller countries (e.g. Luxembourg and Malta) are only 500. Interviews were conducted face-to-face in people's homes in the appropriate national language.

The analyses presented here for EB43 and EB66 are based on individual person-level datasets downloaded from the GESIS ZACAT online data portal (<http://zacat.gesis.org/>). All analyses are weighted to be representative of each national population, and are presented by sex and age group. It should be noted that some age-specific estimates, particularly those based within smoking-related subsets of the data, and those based in Northern Ireland, Malta or Luxembourg, may be based on very small sample sizes – those based on less than 20 respondents are indicated by footnotes († or ‡) to the Tables.

In these analyses, current smoking is defined as smoking packeted cigarettes, hand-rolled cigarettes, or pipe or cigars, and never- and ex-smokers are self-defined. We excluded current smokeless tobacco only users (EB43 : sniff or chew tobacco, EB66 : chew tobacco or take snuff), and (from EB66 only) those who reported only “other” smoking habits. Due to the wording of the questions, it is unclear how former exclusive smokeless users are categorised. However as Sweden (the only EU country with a substantial smokeless tobacco market) was excluded from the analyses, this has a negligible effect. Some analyses referring specifically to packeted cigarettes are included (being of most direct relevance to the aims of this report), but this was only possible for some aspects of current smoking. Only in EB66 could current regular and occasional smokers be distinguished.

For EB72, all the data used are taken from a published report [14], as the dataset has not yet been released. The questions used in that survey wave had been modified so that the difficulty with exclusive smokeless tobacco users does not arise. Current, ex and never smokers are self-defined as smoking cigarettes, pipe or cigars. Further details (e.g. regular/occasional smoking for manufactured cigarette smoking) were enquired of both current and ex smokers,

but as ex-smokers may have answered only about their most recent habits interpretation for ex-smokers is limited.

4.2.2 Eurobarometer 43

In 1995, EB43 included a detailed smoking questionnaire. After excluding countries with other product usage (§2.5), data from 11 countries (3 Virginia and 8 blended) were available.

Table 8 shows the prevalence of current and ex-smoking and the quit ratios, together with the means for the Virginia and blended groups and the results of the t-tests. For current smoking, prevalence of current smoking of packeted cigarettes specifically is also shown, but as countries where hand-rolling is common have been excluded, this is not very different from prevalence of current smoking. This distinction is not available for the other statistics. In men in all age groups, current smoking prevalences were lower, and ex-smoking prevalences and quit ratios higher for Virginia than blended, but these differences were never significant. In women aged 15-24 and 25-39 all three smoking statistics were quite similar in Virginia and blended. In women aged 40-54, current smoking prevalence was similar and ex smoking prevalence and quit ratio higher for Virginia, though never significantly. In women aged 55+ all three statistics were higher for Virginia, though only the difference for current smoking prevalence was significant ($p < 0.05$).

Data were available relating to “time since quit” for the ex-smokers. Provided attention is restricted to a period and age-group when smoking initiation is rare, combining current smokers with those who quit in the last (say) 5 years gives an estimate of the smoking prevalence 5 years ago. Thus the x -year quit rate can be estimated as:

$$\frac{\text{“ex smokers quitting } \leq x \text{ years ago”}}{\text{“current smokers”} + \text{“ex smokers quitting } \leq x \text{ years ago”}}$$

Results for 5 year and 10 year quit rates are shown in Table 9, omitting subjects aged under 25 for whom smoking initiation would have been common. For men quit rates were quite similar for Virginia and blended, but for women quit rates

were higher for Virginia, particularly in women aged 40+. However, the difference was only significant ($p < 0.01$) for 5 year quit rates for women aged 55+ (and also for all ages combined).

Further analyses concentrate on those aspects of the questionnaire related to quitting behaviour.

Current smokers were asked about possible future quitting, with half the sample asked whether they *wish* to quit or cut down, and the other half whether they *intend* to quit or cut down. Results are shown in Table 10. In men, no significant ($p < 0.05$) differences between Virginia and blended were seen at any age or overall for any of the four statistics used. In women, wishing to stop, or stop or cut down, was more common for Virginia than blended, except at age 55+, significantly ($p < 0.05$) at age 15-24, and (for wishing to stop only) for the combined age groups. Differences in intent to stop, or stop or cut down, were never significant. Note that the base of current smokers for each centre is quite small in these analyses, particularly for Northern Ireland and Luxembourg.

Both current and ex-smokers were asked about past quit attempts. Note that this refers to quit attempts after which smoking was resumed (i.e. unsuccessful attempts), so for ex-smoker this refers to a quit period earlier than the present one. Results are shown in Table 11 for current smokers and in Table 12 for ex-smokers, for those making any quit attempt and for those making two or more attempts. Table 11 also shows, for current smokers, results for the length of the most recent quit period, the equivalent analysis for ex-smokers not being included in Table 12 as being of little relevance compared with the present quit period already considered via quit rates above.

For current smokers, the results in Table 11 are mainly consistent with unsuccessful attempts to quit being more common for Virginia than blended, though only one difference (men, aged 25-39, at least one unsuccessful quit attempt) is significant ($p < 0.05$). In men, there is no clear difference between Virginia and blended in the length of the most recent quit period, but in women there is some evidence of shorter periods for Virginia, where women aged 25-39 were significantly ($p < 0.05$) more likely to have a latest attempt lasting less than

1 month, and women aged 55+ ($p<0.05$) and women of all ages ($p<0.01$) being less likely to have a latest attempt of 1 year or more.

For ex-smokers, the results in Table 12 are also consistent with unsuccessful attempts to quit being more common for Virginia than blended. Here significant ($p<0.05$ or $p<0.01$) differences for all age groups combined are seen for both sexes for at least one and at least two unsuccessful quit attempts, with a number of these differences seen in specific age-groups.

Further questions on methods to assist quitting (nicotine gum or patches, hypnosis etc) and reasons for failure (method did not work, influence of friends etc) have not been analysed due to the small numbers of subjects available for each method or reason.

4.2.3 Eurobarometer 66

After excluding countries with mixed cigarette types (i.e. Cyprus Republic and TCC) or other tobacco usage, data are available from 4 Virginia and 19 blended countries.

Table 13 shows results for the prevalence of current smoking of manufactured cigarettes and for the regularity of current smoking of manufactured cigarettes (i.e. the proportion of the current smokers who smoke regularly), as well as the standard statistics of prevalence of current smoking and of ex-smoking and the quit ratios. Unlike EB43, no information is available on quit rates or future quitting intentions. The results in Table 13 show no evidence of any difference in regularity by cigarette type. In men, prevalence of current smoking, of manufactured cigarettes or overall, is clearly lower for Virginia than blended, being highly significant ($p<0.001$) overall, and also clear in the younger age groups. However, there is little difference by cigarette type for ex-smoking prevalence, so that the quit ratio is higher for Virginia ($p<0.01$ for all ages). In women, with one minor exception (ex-smoking prevalence at age 25-39), there is no evidence of a difference by cigarette type.

Current smokers were asked about any quit attempt made in the last 12 months, and Table 14 shows results for the number of attempts and the length of the most recent attempt. No significant differences were seen in women, but a

number of significant differences were seen in men. These included a higher prevalence of any quit attempt for Virginia at ages 25-39 ($p<0.01$), 40-54 ($p<0.01$) and overall ($p<0.001$), a higher prevalence of more than 5 quit attempts for Virginia at age 55+ ($p<0.001$), a lower prevalence of quit attempts lasting less than a week for Virginia at age 40-54 ($p<0.01$), and a lower prevalence of quit attempts lasting over 2 months for Virginia at age 15-24 ($p<0.001$).

Again, further questions on methods of quitting and reasons for failure were not analysed due to the sparsity of the data.

4.2.4 Eurobarometer 72

Data are available for 3 Virginia countries (with UK only available combined), and for 20 blended countries. Tables 15 and 16 show results for similar entities to those studied in EB 66, although as explained above (§4.2.1) changes to the wording of the questionnaire mean that the two surveys are not fully comparable. Results are not available by sex or age.

The results in Tables 15 and 16 show no indication of a difference between Virginia and blended countries for any of the statistics studied.

4.2.5 Multivariate analysis

The Eurobarometer surveys are supplemented by occasional “Flash” surveys, including Flash EB 253 conducted in 2008 on tobacco [18]. Interviewing was mainly by telephone, but with some mobile phone or face-to-face interviewing in countries where fixed-line telephone coverage is low. No questions specifically relevant to quitting were asked.

The prevalence of smoking from this survey was used in an analysis conducted by Bogdanovica *et al* [19]. Using multiple linear regression on a country-level, associations were investigated between smoking prevalence for the sexes combined (as the dependent variable) and various other national characteristics (as potential predictor variables). The variables considered included measures of corruption, national wealth, income inequality, material deprivation, social budget, life satisfaction, human development, gender equality, unemployment, education, importance of religion, tobacco production,

proportion of ex-smokers and national tobacco control policy enactment. The analysis covered 27 EU countries.

In a multiple linear regression model with backwards exclusion, starting with all variables significant in univariate analysis, smoking prevalence was independently significantly associated only with the Corruption Perceptions Index (CPI) score [20].

We have re-run this final model of the analysis. There were some unexplained discrepancies between the original analysis and our re-run (possibly due to use of different software) but these were minor (e.g. as shown as Model 1 in the text-table below, we found that the prevalence decreased by 1.61 rather than 1.62 per CPI unit, but agreed that $p = 0.002$).

To investigate if the Virginia/blended market of each country would contribute usefully to this model, two alternative variables were considered (% Virginia as a continuous variable or a dichotomous variable for >75% Virginia). Countries which we had identified as using other products or cigarette types (Belgium, France, Netherlands, Portugal, Spain, Sweden – §2.5) or using both Virginia and blended cigarettes (Cyprus) were omitted, leaving 20 countries (Model 2). Fitting only the Virginia/blended variables (Models 3-4), there was some suggestion that prevalence was lower in the Virginia countries, but this was only of borderline significance. However when added to the model with CPI (Models 5-6), neither of the Virginia/blended variables made any significant improvement to the model, though the corruption measure remained significant:

Countries	Model	Variables	Coefficient	p	
27 countries	1	CPI	-1.61	0.002	**

20 countries	2	CPI	-1.49	0.014	*
	3	Virginia%	-0.05	0.157	NS
	4	>75% Virginia	-5.16	0.093	(*)
	5	CPI Virginia %	-1.35 -0.03	0.028 0.307	* NS
	6	CPI >75% Virginia	-1.32 -3.78	0.027 0.171	* NS

P values coded as *** $p < 0.001$, ** $0.001 < p < 0.01$, * $0.01 < p < 0.05$, (*) $0.05 < p < 0.1$, NS $p \geq 0.1$.

5 The multinational study approach – adolescents

5.1 HBSC

5.1.1 Simple approach

The HBSC study – Health Behaviour in School-aged Children – started in the early 1980s in five countries, with the latest phase² in 2005-06 conducted in 41 countries. The survey is conducted in schools and targets children aged 11, 13 and 15. Sample sizes are generally about 1500 in each age group. The survey is conducted according to a standard protocol, although some aspects may vary. For instance, sampling across school grades may be necessary according to the national education system, and administration of the questionnaire may be by teachers, members of school health teams or professional fieldworkers.

Our analysis concerns three recent waves of the study (1997-98, 2001-02, 2005-06), and all the data used in this analysis are taken from published sources [21-23].

In all three waves, the first smoking question asked was “*Have you ever smoked tobacco (at least one cigarette, cigar or pipe?)*”, with possible responses *yes/no*. A second question measured frequency “*How often do you smoke tobacco at present?*” with response categories *I don’t smoke / Every day / At least once a week but not every day / Less than once a week*.

In the 2001-02 and 2006-06 waves, a further question asked “*At what age did you first do the following things ... Smoke a cigarette (more than a puff)?*” – results from this question were reported only for 15 year-olds.

Some data were given in the original reports with insufficient decimal places (as reproduced in Table 17) for this to be a robust analysis, and the results should be regarded with caution. This applies notably to the prevalences of weekly and daily smoking at age 11 in the 1997-98 and 2005-06 surveys, where the prevalences were very low.

² A further phase was conducted in 2010 but results have not yet been published.

Table 17 presents results for smoking prevalence, separately for ever prevalence, current weekly prevalence (i.e. at least once a week) and current daily prevalence. Data are shown by country, sex, age and survey wave. Results for current weekly prevalence are also shown in Figure 6. Among boys, ever prevalence was, with one minor exception, significantly ($p < 0.05$, $p < 0.01$ or $p < 0.001$) lower for Virginia for all nine age/wave combinations. Differences in current weekly prevalence were not seen at ages 11 or 13, but were lower for Virginia at age 15, significantly in 2001/02 ($p < 0.001$) and 2005/06 ($p < 0.05$). Similar differences in current daily prevalence were also seen at age 15, but at younger ages some significant ($p < 0.05$) differences in the opposite direction were seen (age 11 2005/06 and age 13 1997/98). Among girls, all three prevalences were generally higher for Virginia, though only some differences were significant. Exceptionally, no differences were evident at age 15 in 2001/02 and 2005/06, and ever prevalence was significantly ($p < 0.05$) lower for Virginia at age 11 in 2005/06.

Table 18 presents results for progression to regular smoking, separately for ever to weekly smoking, and for ever to daily smoking. Again data are shown by country, sex, age and survey wave. Results for progression to regular smoking are also shown in Figure 7. At ages 11 and 13, rates of progression in both boys and girls were always somewhat higher in Virginia than blended countries, with about half the comparisons by age and wave statistically significant at least at $p < 0.05$. At age 15, rates were also generally higher for Virginia in 1997/98, but not in the later waves. Indeed, in 2001/02 the rate of progression from ever to daily smoking in boys was significantly ($p < 0.01$) lower in Virginia than blended.

For age of starting to smoke, results for the 2001-02 wave were reported as mean ages of first smoking, as shown in Table 19, both overall among ever smokers, and restricted to weekly and daily smokers. The results show no evidence of any differences by cigarette type in boys. In girls, however, the results are all consistent with an earlier age of starting in Virginia countries, the difference being almost significant among ever smokers ($0.05 < p < 0.1$), and significant among weekly smokers ($p < 0.05$) and daily smokers ($p < 0.01$).

For the 2005-06 wave, results were only available as the percentage of 15-year olds who reported first smoking at age 13 or younger, which would differ little from the prevalence of smoking at age 13. Table 19 includes results for a derived statistic expressing those who first smoked by age 13 as a percentage of those who ever smoked by age 15. This again shows no evidence for any difference in boys, but is consistent with an earlier age of start for girls in Virginia countries ($p < 0.05$).

5.1.2 Multivariate approach

Factors associated with the prevalence of smoking among 15 year olds from the 2005-06 HBSC survey were studied in an analysis conducted by Hublet *et al* [24]. Modelling with both individual-level variables and country-level variables investigated associations between weekly or daily smoking and measures of affluence, tobacco control policy and adult smoking. Boys and girls were analysed separately, the analysis being restricted to 29 European countries for which data on the Tobacco Control Scale [25] were available. The main analysis concerned smoking at least weekly. It was repeated for daily smoking, although reported with less detail.

The individual-level variables considered were age, and the Family Affluence Scale (FAS) categorised as low, medium or high tertiles within each country. Results were reported to be similar for boys and girls, with low FAS score for boys, and low or medium for girls associated with significantly higher smoking prevalence than high FAS scores. Results for age were not reported, but 90% of the participants were 15 years old.

The analysis then continued with a mixed-effects logistic regression, sequentially including those country-level variables which had significance level $p < 0.25$. The country-level variables which were thus added in to the weekly smoking analysis were for boys:

- Price
- Bans on advertisements
- Affluence of country
- Adult smoking
- Legality of vending machines (total ban or partial restriction)

and for girls :

- Public ban
- Legality of vending machines(total ban or partial restriction)

The odds ratios and p-values from this “final model” are shown in Table 20 (as Model 1). The same variables were reported to be related to daily smoking although, as shown in Table 20, significance levels varied.

Without access to the individual-level data it is not possible to replicate these analyses precisely. However we carried out a multiple logistic regression at country level, using the logarithm of the smoking prevalence as the dependent variable. For weekly smoking, the prevalence data were taken from Table 1 of [24] (given to 1 decimal place). For daily smoking, analysis was further hampered by the fact that the smoking prevalence data were available only as whole numbers [23]. Values for the independent variables were taken from Table 2 of [24].

As shown in Table 20 as Model 2, results for the “final model” appear quite similar to those obtained from the original multi-level analysis. Odds ratios (only available for weekly smoking) were of similar magnitude and with one exception (girls, vending machine total ban) the same variables achieved significance.

To investigate whether the Virginia/blended market share of each country could contribute usefully to this analysis, we first excluded those countries which we had identified as using other products or cigarette types (Belgium, France, Netherlands, Norway, Portugal, Spain, Sweden - see §2.5), leaving 22 countries (Model 3). Variables indicating the Virginia/blended market in each country were then added to each model. The variables used were the % Virginia as a continuous variable, and a dichotomous variable for >75% Virginia. (As all the relevant countries had at least 90% Virginia and blended combined except for Poland with 82%, and all had at least 75% of either Virginia or of blended, choice of other possible definitions would have made little difference to the results.)

As shown in Table 20, Model 4, fitting only the dichotomous (>75% Virginia) variable in the absence of other variables, showed that the prevalence

of smoking was lower in the Virginia countries for boys, although only significantly so for daily smoking, and was non-significantly higher for girls. When added to the “final model” (Model 5), there was no significant contribution for daily or weekly smoking, for either boys or girls. The same was true for the continuous Virginia % variable, and for variant analyses (not shown) starting from a full model including all the available country-level variables (as shown in Table 2 of [24]), and starting from a reduced model including only those variables that retained significance at $p < 0.1$ in the “final model”.

5.2 ESPAD

The ESPAD – European School survey Project on Alcohol and other Drugs – started in 1995 with further study waves conducted in 1999, 2003 and 2007. A total of 38 countries participated in at least one wave. The survey is conducted in schools and targets students age 15-16 (those born in a particular calendar year). The survey is conducted according to a standard methodology and using a common questionnaire. The samples are generally nationally representative, although some are regional (though only those in Germany are relevant to the present report).

All the data used in this report are taken from published sources [26-29]. For 1995 only, results for UK were reported separately for England, Northern Ireland, Scotland and Wales, and results for Greece refer to a survey in 1993 using an earlier version of the questionnaire. The Monitoring the Future project in the USA is included in some ESPAD reports, as the questionnaire wording is very similar for some items, but the methodology differs and it is excluded here. Results for Denmark for 2007 are included here, although are considered not fully comparable due to sampling problems.

The smoking questions refer only to cigarettes. Students were first asked “*On how many occasion (if any) during your lifetime have you smoked cigarettes*” with possible responses 0, 1-2, 3-5, 6-9, 10-19 20-39 or 40 or more, followed by “*How frequently have you smoked cigarettes in the LAST 30 DAYS*”, with responses “not at all”, “less than 1 cigarette per week”, “less than 1 per day”, “1-5 per day”, “6-10 per day”, “11-20 per day” and “more than 20 per day”. A further question then asked “*When (if ever) did you FIRST do each of*

the following things ...Smoke your first cigarette ... Smoke cigarettes on a daily basis” with possible responses “never”, “9 years of age or less”, 10, 11, 12, 13, 14, 15, “16 or older”. Although the wording of the questions was the same in each survey wave, the order of the questions differed. For instance the question on starting to smoke came after other questions concerning alcohols and other drugs, except in the 2007 survey where it came immediately after the other smoking questions.

The available data allow numerous definitions of current smoking prevalence to be analysed. In Table 21, results are shown for ever smoking, smoking at least 10 cigarettes in lifetime, smoking in last 30 days, and smoking daily in last 30 days. Note however that data are not available separately for the categories “less than 1 cigarette per week” and “less than 1 per day”, so that weekly smoking cannot be identified, and that no satisfactory indicator of ex-smoking is available (not having smoked in the last month not necessarily being an indicator of having quit for this age group). The results are also shown in Figure 8. In boys, the results for all four smoking definitions are generally consistent with a lower prevalence for Virginia, particularly in the 2003 and 2007 waves where the difference is always significant at least at $p < 0.01$. In girls, prevalence tends to be higher for Virginia for the early waves, particularly in 1995 where the difference is generally significant (at $p < 0.05$ or $p < 0.001$), but non-significantly lower for Virginia in the later waves.

Table 22, and also Figures 9 and 10, present results concerning the progression from first smoking to regular smoking, with three statistics considered. For the first statistic, the percentage of ever smokers smoking in the last month, progression was significantly higher for Virginia in 1995 for both boys ($p < 0.05$) and girls ($p < 0.001$), but no significant differences were seen subsequently. For the second statistic, the percentage of ever smokers smoking daily in the last month, progression was again higher for Virginia in 1995, but significantly only for girls ($p < 0.05$). Subsequently, however, progression was lower for Virginia, though significantly only for boys in 2003 ($p < 0.05$) and 2007 ($p < 0.01$). For the third statistic, the percentage of ever smokers of 10 cigarettes smoking daily in the last month, the pattern was similar to that for the second

statistic, though only the lower progression for Virginia in boys in 2007 was significant ($p < 0.001$).

Results from the questions on age of starting to smoke were reported in the form of the percentages (of the whole sample) who smoked their first cigarette at age 13 or younger or who first smoked daily at age 13 or younger. Given that all participants are aged 15-16 at time of survey, this statistic will be quite similar to the corresponding prevalences of ever or daily smoking at age 13. Table 23 includes these results as well as that for a derived statistic, those smoking their first cigarette at age 13 or younger as a percentage of ever smokers. This derived statistic is similarly defined to that for the HBSC results for 2007 shown in Table 19. For boys, the results in Table 23 show no clear differences in 1995 and 1999. For 2003 and 2007, percentages are lower for Virginia, but only significant ($p < 0.01$) for smoking the first cigarette at age 13 or younger. For girls, percentages tend to be higher for Virginia for all three statistics, though only about half are statistically significant at $p < 0.05$.

5.3 GYTS

The Global Youth Tobacco Survey (GYTS) is part of the Global Tobacco Surveillance System (GTSS) [2]. It is a school-based survey targeting 13-15 year olds. All schools in a geographically defined area are eligible, and schools and classes are selected by a two-stage cluster sampling design. All students attending on the day are invited to participate anonymously using self-completion questionnaires. The defined area may be national, regional or focused on specific urban or rural areas. The surveys started in 12 countries in 1999, and are repeated at approximately 4-year intervals.

The analyses presented here are based on data downloaded from the GTSS Data website (<http://apps.nccd.cdc.gov/gtssdata/Default/Default.aspx>) [3]. They concern various “indicators” (see below), and refer to the most recent survey in each location, up to 2008. The data refer to ages 13-15, and are weighted to be representative of the location.

After excluding countries without information on Virginia/blended cigarette market and countries using both types (§2.4-2.5), data were available

for 50 Virginia and 59 blended countries. Where both national and regional data are available for a country, we used only the national data (which was also the most recent except in the case of Venezuela) – giving estimates for 32 Virginia and 49 blended countries. For 7 Virginia and 3 blended countries, the data refer to a single region. Among the remaining countries with surveys in more than one region (11 Virginia and 7 blended) some countries had data for a very large number of locations (notably 33 in Mexico and 23 in Brazil). As it was not possible to weight the locations, we used simple averages within country to avoid the international comparisons being overwhelmed by a few countries. Thus each analysis includes a single data point for each country.

As previously mentioned (§2.5), for this large group of countries, few of which are covered by ISS, it was not possible to identify in which countries other cigarette types or other types of tobacco are commonly used. The analyses are therefore carried out without any such exclusion. However one of the indicators available from GYTS itself is “used tobacco product other than cigarettes in the last month”. A variant analysis was conducted excluding countries where the value of this indicator (for sexes combined) exceeded 15%. It should be noted that, unlike the exclusions used in other sections of this report, this exclusion is based specifically on current adolescent usage, rather than on the longer term traditional usage in the whole population. Also it does not refer to cigarette type (e.g. New Zealand, where hand-rolling is common, is not excluded). However some countries previously included *are* excluded here (e.g. Estonia, Latvia).

Results for the three indicators relevant to the current report are shown in Table 24 and Figures 11-13. They are defined as follows [30] :

Current cigarette smoking : smoked cigarettes on at least one day during the preceding month.

Susceptible to tobacco use initiation : Among those who have never smoked, responded anything other than “definitely no” to both of the following questions – *“If your best friend offered you a cigarette, would*

you smoke it?" and *"Do you think you will try smoking a cigarette in the next year?"*

Desire to stop : Among current smokers, reported that they wanted to stop smoking now.

Results are shown for boys and girls separately. For the indicator "desire to stop", data for many regions were not available as the sample was considered "too small to support statistically valid results". Results shown are based on those regions for which data are available, and sexes-combined results are also shown.

For "smoked cigarettes in the last month" both the main and the variant analyses showed significantly ($p < 0.01$ or < 0.001) lower means for Virginia for both boys and girls, despite evidence of substantial variation between country within cigarette type. The same conclusion can also be drawn for "susceptible to initiate" (among never smokers). Despite their lower cigarette smoking, Virginia countries showed higher levels of "desire to stop" (among current smokers). This was highly significant ($p < 0.001$) for boys and for sexes combined in both the main and variant analyses, but was less marked for girls where it was only significant ($p < 0.05$) in the main analyses,

6 Discussion and overall conclusions

6.1 Limitations

It is very difficult to assess whether the availability of flue-cured Virginia versus blended cigarettes differentially affects smoking prevalence, quitting or the age of starting to smoke. Because, in most countries, smokers typically smoke one type of cigarette only, and because relevant comparisons are not available within countries where both types are commonly smoked, the only practical way of getting an answer to the questions of interest involves a comparison of countries where cigarettes smoked are predominantly Virginia versus those where they are predominantly blended. However, such a comparison suffers from various inherent weaknesses. First, it is ecological in nature. Second, in many of the analyses reported no account is taken of potential confounding variables. Third, comparisons are often based on a

relatively small number of countries, particularly for those using Virginia cigarettes. Fourth, the definitions of the variables used may vary between studies, and within studies may vary by time or between country. Finally, the estimates being compared will each be subject to sampling variation.

It should also be noted that even where statistically significant differences between the cigarette types are seen, there is often considerable variation by country within cigarette type. This implies that there are other, and probably many other, factors that affect the variable studied, and that control for these variables may explain the observed differences. One factor that seems difficult to control for is “Britishness”. The countries that use flue-cured Virginia cigarettes are not a random sample of countries, but are predominantly countries with an association with Great Britain, many formerly belonging to the British Empire or having strong connections with Great Britain. These countries include not only the countries forming Great Britain and Northern Ireland, and Ireland, but also Malta, Canada, Australia, New Zealand, India, Bangladesh, Pakistan and Sri Lanka, and various African countries. Though there are a number of countries in the GYTS analyses with no obvious such connections, in the other data sets considered in this report all the countries qualify in this respect.

While control for “Britishness” would be difficult, it is possible to control for other factors. Our report includes a limited number of published multivariate analyses which could be extended. It was interesting to note that our multivariate analyses of Eurobarometer data for 2008 suggested that such adjustment might well affect comparisons. Here a tendency for smoking prevalence to be lower in Virginia countries was substantially reduced after adjustment for the Corruption Perception Index, the variable found by the original authors to most strongly predict smoking prevalence. Similarly, in our multivariate analysis of HBSC data for 2005-06, the tendency for daily smoking among boys to be lower in Virginia countries lost significance when adjusted for six variables identified as important by the original authors.

Inferring cause-and-effect from our analyses would not be justified. All one can say is that levels of a particular index of smoking are or are not associated with cigarette type.

6.2 Current smoking

Table 25 summarizes significant ($p < 0.05$) differences seen by cigarette type in the studies considered for various indices of current smoking prevalence. Attention is restricted to results that are sex- and age-specific. Results are summarized for 120 comparisons for adults and for 52 comparisons for adolescents.

For adults, the eight significant differences seen for men are all in the direction of a higher prevalence in blended countries or sites, while the three significant differences seen for women are all in the direction of a higher prevalence for Virginia.

For adolescents, where a higher frequency of significant differences is seen, the direction of the differences is generally the same, with 10/12 significant differences in boys indicating a higher prevalence for blended and 11/12 significant differences in girls indicating a higher prevalence for Virginia. The exceptions were in the HBSC study, where for daily smoking prevalence is significantly higher for Virginia in boys aged 11 and 13, and in GYTS (which involves a much wider geographical coverage than the other studies) where prevalence is significantly higher for blended in girls aged 13-15.

Taking into account the lack of significance of many of the comparisons, particularly in adults, and the fact that significant cigarette type differences, where seen, are in the opposite directions for the two sexes, these results do not suggest that national cigarette type has any meaningful effect on prevalence of current smoking. Reinforcing this is the lack of effect of cigarette type on current smoking prevalence seen in the multivariate analyses of Eurobarometer and HBSC data (see § 4.2.5 and 5.1.2).

6.2 Ex smoking

Table 26 similarly summarizes significant ($p < 0.05$) differences seen by cigarette type for various indices of ex smoking prevalence. As for Table 25,

attention is restricted to sex- and age-specific results, but here results are only available for adults. Of the 80 comparisons, 10 are significant and all in the direction of a greater prevalence for Virginia. Three differences were in men, all in the national smoking statistics comparison, with seven in women, mostly (five cases) in the MONICA data. Significant differences in quit ratios (see Tables 3, 6, 8 and 13) and quit rates (see Tables 4 and 9), where seen, are also generally in the direction of higher quitting for Virginia. While these data tend to indicate some association towards a higher prevalence of ex smokers in Virginia countries, the various limitations noted above (see § 6.1) preclude any firm conclusion of causality.

Wish to stop or cut down among current smokers (see Tables 10, 24) and quit attempts (see Tables 11, 12 and 14), are generally in the direction of more desire to stop, and more and shorter unsuccessful quit attempts for Virginia. This is possibly indicative of more difficulty in quitting, contrary to the evidence above on ex smoker prevalence. However these indices are difficult to interpret, some (EB43, Table 12) being based on ex-smokers who by definition went on to a successful quit attempt, and others (EB66, Table 14) being limited to quit attempts by current smokers in the last year, thus automatically ignoring longer or successful quit attempts.

6.4 Starting to smoke

Table 27 summarizes significant ($p < 0.05$) differences seen in age of starting to smoke by cigarette type, based on two studies in adolescents, HBSC and ESPAD. In boys, only two significant differences were seen, with age of starting earlier for blended. In girls, eight significant differences were seen, with age of starting earlier for Virginia.

A similar pattern is suggested by the results for progression from first smoking to current daily smoking (see Tables 18, 22). Among 15-16 year old boys, progression to daily smoking, where significant, was higher for blended, but for girls and younger boys it was higher for Virginia.

The inconsistency of association by sex is indicative of no true relationship.

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Tables

Table 1 Current smoking prevalence – National smoking statistics approach

MEN		Virginia				Blended					Between types P
		Australia	Canada	UK	Virginia, mean	Austria	Denmark	Germany	US	Blended, mean	
Age 20 - 34	1971-75	48.8	52.8	55.1	52.2	46.4	52.5	56.1	46.4	50.4	NS
	1976-80	45.0	48.6	46.9	46.8	47.4	49.4	53.3	40.8	47.7	NS
	1981-85	39.9	43.0	37.9	40.3	41.0	47.1	50.1	36.8	43.8	NS
	1986-90	35.0	37.0	37.6	36.5	45.0	45.4	46.9	32.9	42.6	NS
	1991-95	34.0	33.9	35.9	34.6	45.1	41.7	44.0	30.8	40.4	NS
	1996-2000	30.7	31.6	38.8	33.7	39.7	43.3	44.1	30.2	39.3	NS
	2001-05	31.5	27.3	36.7	31.8		46.2	42.0	30.0	39.4	NS
Age 35 - 49	1971-75	46.2	51.0	55.0	50.8	43.1	49.4	51.1	46.7	47.6	NS
	1976-80	42.1	46.3	47.7	45.3	39.6	46.6	47.7	44.6	44.6	NS
	1981-85	37.2	41.9	37.7	38.9	32.4	44.5	38.8	36.2	38.0	NS
	1986-90	29.7	35.9	41.5	35.7	40.8	42.8	42.0	31.6	39.3	NS
	1991-95	30.7	33.1	35.6	33.1	43.1	41.7	41.1	32.1	39.5	NS
	1996-2000	28.4	30.8	30.2	29.8	38.2	40.6	40.7	28.6	37.0	(*)
	2001-05	27.1	24.5	29.2	26.9		43.4	40.8	27.4	37.2	NS
Age 50 - 64	1971-75	40.4	47.5	53.4	47.1	39.6	40.1	45.5	38.7	41.0	NS
	1976-80	37.1	42.6	47.1	42.3	38.3	41.9	42.2	35.1	39.4	NS
	1981-85	33.8	38.8	36.2	36.3	29.9	44.5	31.9	30.4	34.2	NS
	1986-90	26.4	31.4	37.9	31.9	34.4	41.2	32.7	27.9	34.1	NS
	1991-95	24.2	26.6	31.5	27.4	34.0	37.1	30.1	25.4	31.7	NS
	1996-2000	22.2	23.8	25.1	23.7	26.1	35.9	29.2	22.7	28.5	NS
	2001-05	19.9	18.3	23.2	20.5		38.2	32.8	21.4	30.8	NS
Age 65 - 79	1971-75	30.0	32.5	43.0	35.2	31.2	23.8	34.6	25.8	28.8	NS
	1976-80	25.6	31.3	36.3	31.1	29.8	26.3	30.8	22.3	27.3	NS
	1981-85	25.5	26.2	28.1	26.6	28.7	25.5	24.2	21.3	24.9	NS
	1986-90	19.5	20.9	28.9	23.1	26.2	27.8	24.0	19.0	24.3	NS
	1991-95	16.2	18.2	23.0	19.1	23.9	27.1	20.1	16.8	22.0	NS
	1996-2000	15.2	16.1	16.1	15.8	15.7	26.8	18.0	14.4	18.7	NS
	2001-05	11.3	11.5	13.1	12.0		28.7	23.0	14.1	21.9	(*)

Table 1 (continued)

WOMEN		Virginia			Virginia, mean	Blended				Blended, mean	Between types P
		Australia	Canada	UK		Austria	Denmark	Germany	US		
Age 20 - 34	1971-75	36.3	39.9	47.0	41.1	18.7	49.3	44.2	37.3	37.4	NS
	1976-80	36.4	41.3	42.9	40.2	27.4	49.0	43.9	34.9	38.8	NS
	1981-85	35.6	38.7	38.1	37.5	32.0	51.4	40.4	31.4	38.8	NS
	1986-90	31.2	35.2	40.0	35.5	33.0	47.1	40.4	27.9	37.1	NS
	1991-95	33.6	31.0	37.0	33.9	36.2	43.4	36.2	27.6	35.8	NS
	1996-2000	31.8	28.5	35.5	31.9	34.2	42.6	39.4	24.6	35.2	NS
	2001-05	26.5	22.3	31.7	26.8		44.6	41.9	23.9	36.8	NS
Age 35 - 49	1971-75	33.3	37.1	48.5	39.6	12.5	46.5	30.3	36.7	31.5	NS
	1976-80	30.3	37.7	43.6	37.2	17.4	45.6	28.5	37.6	32.3	NS
	1981-85	28.2	34.8	35.5	32.8	22.1	45.8	25.7	30.1	30.9	NS
	1986-90	24.1	32.2	39.3	31.9	23.3	43.7	29.8	26.0	30.7	NS
	1991-95	24.2	29.2	34.3	29.3	29.7	41.9	31.2	26.9	32.4	NS
	1996-2000	23.5	27.2	28.8	26.5	30.8	40.6	33.6	24.3	32.3	NS
	2001-05	22.8	19.6	27.3	23.2		42.2	38.3	23.0	34.5	NS
Age 50 - 64	1971-75	27.0	30.5	43.8	33.8	8.1	35.0	18.4	30.3	22.9	NS
	1976-80	25.7	31.7	41.0	32.8	11.4	37.4	18.7	30.4	24.5	NS
	1981-85	21.2	29.4	35.8	28.8	16.6	41.0	15.1	24.7	24.3	NS
	1986-90	19.6	26.4	34.6	26.9	12.8	43.8	17.1	22.6	24.1	NS
	1991-95	17.3	23.3	30.3	23.6	15.0	37.8	15.9	22.1	22.7	NS
	1996-2000	14.7	21.3	25.0	20.3	17.2	34.0	18.8	19.9	22.5	NS
	2001-05	15.2	15.6	22.5	17.8		34.7	21.9	17.1	24.5	NS
Age 65 - 79	1971-75	15.6	12.5	24.5	17.5	4.0	17.6	9.7	12.2	10.9	NS
	1976-80	15.1	15.3	23.4	18.0	5.3	18.6	9.3	16.9	12.5	NS
	1981-85	11.3	15.6	23.8	16.9	7.1	21.1	8.3	14.8	12.8	NS
	1986-90	11.5	15.4	22.8	16.6	6.8	25.6	8.4	13.8	13.7	NS
	1991-95	9.7	14.4	19.8	14.7	8.7	24.3	7.2	13.6	13.5	NS
	1996-2000	8.2	13.0	17.5	12.9	7.1	22.4	8.5	12.6	12.7	NS
	2001-05	8.0	9.6	14.5	10.7		22.2	9.4	10.5	14.0	NS

P: t-test for difference between Virginia and blended groups, coded as *** $p < 0.001$, ** $0.001 < p < 0.01$, * $0.01 < p < 0.05$, () $0.05 < p < 0.1$, NS $p \geq 0.1$

Table 2 Ex-smoking prevalence – National smoking statistics approach

MEN		Virginia			Virginia, mean	Blended				Blended, mean	Between types P
		Australia	Canada	UK		Austria	Denmark	Germany	US		
Age 20 - 34	1971-75	13.7	16.1	11.6	13.8				19.7		
	1976-80	15.0	15.3	12.8	14.4	9.2	10.9	8.0	18.3	11.6	NS
	1981-85	17.5	14.1	14.3	15.3	9.6	8.8	14.6	15.0	12.0	NS
	1986-90	16.7	20.3	13.1	16.7	9.9	10.7	15.6	14.4	12.7	NS
	1991-95	18.2	13.2	12.0	14.5	8.8	12.1	15.9	11.4	12.0	NS
	1996-2000	16.4	18.1	13.1	15.9	9.4	11.2	10.1	10.3	10.3	**
	2001-05	14.6	17.6	12.2	14.8				11.0		
Age 35 - 49	1971-75	21.3	23.8	18.3	21.2				29.0		
	1976-80	22.5	24.2	21.9	22.9	18.6	16.3	13.9	28.3	19.3	NS
	1981-85	26.4	26.5	25.1	26.0	19.1	14.5	27.1	31.9	23.2	NS
	1986-90	29.2	33.4	25.6	29.4	19.4	19.0	28.4	30.6	24.4	NS
	1991-95	30.3	29.3	25.9	28.5	16.7	19.2	25.7	26.8	22.1	(*)
	1996-2000	29.8	31.8	26.3	29.3	22.5	22.1	25.3	22.7	23.1	*
	2001-05	29.3	30.9	22.4	27.5				21.6		
Age 50 - 64	1971-75	31.4	30.9	24.0	28.8				37.6		
	1976-80	35.2	30.4	29.4	31.7	30.1	21.5	20.4	40.4	28.1	NS
	1981-85	36.3	34.5	34.7	35.2	29.3	18.4	40.3	44.5	33.1	NS
	1986-90	39.9	44.5	37.2	40.5	28.6	30.3	40.1	46.4	36.3	NS
	1991-95	40.6	46.3	40.6	42.5	27.7	24.6	36.9	43.9	33.3	NS
	1996-2000	41.8	49.0	42.4	44.4	32.5	33.3	38.2	41.4	36.4	*
	2001-05	43.0	52.6	38.1	44.6				39.8		
Age 65 - 79	1971-75	40.7	38.0	29.1	36.0				36.7		
	1976-80	42.9	35.0	37.4	38.4	35.2	32.3	25.5	49.0	35.5	NS
	1981-85	46.3	42.0	44.5	44.3	35.8	26.9	51.6	54.6	42.2	NS
	1986-90	47.2	55.4	49.3	50.7	36.4	41.1	57.5	57.5	48.1	NS
	1991-95	54.9	66.2	54.3	58.5	37.9	40.2	51.8	57.1	46.8	NS
	1996-2000	54.6	59.5	56.3	56.8	43.4	46.1	56.3	56.8	50.7	NS
	2001-05	54.3	67.4	52.8	58.2				56.4		

Table 2 (continued)

WOMEN		Virginia			Virginia, mean	Blended				Blended, mean	Between types P
		Australia	Canada	UK		Austria	Denmark	Germany	US		
Age 20 - 34	1971-75	9.0	13.8	9.9	10.9				13.4		
	1976-80	12.3	13.4	10.6	12.1	8.8	11.5	7.1	14.3	10.4	NS
	1981-85	15.8	14.5	12.8	14.4	9.0	9.5	15.6	13.0	11.8	NS
	1986-90	17.5	21.9	11.4	16.9	9.2	13.7	19.8	15.8	14.7	NS
	1991-95	17.9	18.6	12.9	16.5	8.1	12.5	16.8	11.9	12.3	NS
	1996-2000	17.9	19.8	13.9	17.2	12.0	14.9	11.1	10.0	12.0	*
	2001-05	18.0	18.5	12.6	16.4				10.3		
Age 35 - 49	1971-75	11.3	15.2	10.9	12.5				16.9		
	1976-80	13.1	14.5	13.4	13.7	6.2	11.0	5.5	16.5	9.8	NS
	1981-85	15.5	17.5	16.5	16.5	7.8	9.6	13.7	20.6	12.9	NS
	1986-90	19.1	24.3	17.2	20.2	9.3	14.0	17.9	22.3	15.9	NS
	1991-95	24.4	24.5	20.1	23.0	11.7	18.1	19.0	20.2	17.3	(*)
	1996-2000	25.8	27.1	21.0	24.6	18.4	21.9	23.3	18.5	20.5	NS
	2001-05	27.1	27.8	17.7	24.2				17.6		
Age 50 - 64	1971-75	9.4	15.9	13.4	12.9				15.0		
	1976-80	13.1	13.2	17.1	14.5	6.9	12.3	5.3	17.2	10.4	NS
	1981-85	17.4	15.6	19.9	17.6	7.0	12.6	11.0	23.3	13.5	NS
	1986-90	18.5	25.4	19.3	21.0	7.1	19.8	12.8	26.5	16.5	NS
	1991-95	24.4	30.1	24.1	26.2	10.2	19.7	13.4	26.7	17.5	NS
	1996-2000	25.4	31.6	26.9	28.0	17.4	25.6	17.5	26.8	21.9	NS
	2001-05	26.2	39.7	26.5	30.8				25.6		
Age 65 - 79	1971-75	10.2	20.7	12.0	14.3				11.5		
	1976-80	12.8	9.8	17.8	13.5	5.3	16.3	3.9	16.2	10.4	NS
	1981-85	16.0	14.0	22.1	17.4	6.1	19.4	9.3	24.1	14.7	NS
	1986-90	19.9	26.3	24.3	23.5	6.9	26.1	12.1	28.5	18.4	NS
	1991-95	23.4	33.4	30.8	29.2	8.5	23.6	8.7	28.6	17.4	NS
	1996-2000	25.0	31.7	32.1	29.6	13.4	31.0	11.5	28.5	21.1	NS
	2001-05	26.4	42.4	29.6	32.8				29.5		

P: t-test for difference between Virginia and blended groups, coded as *** $p < 0.001$, ** $0.001 < p < 0.01$, * $0.01 < p < 0.05$, (*) $0.05 < p < 0.1$, NS $p \geq 0.1$

Table 3 Quit ratio – National smoking statistics approach

MEN		Virginia			Virginia, mean	Blended				Blended, mean	Between types P
		Australia	Canada	UK		Austria	Denmark	Germany	US		
Age 20 - 34	1971-75	21.9	23.3	17.2	20.8				29.6		
	1976-80	24.8	23.9	21.1	23.3	15.9	17.9	12.9	30.7	19.4	NS
	1981-85	30.0	24.2	27.0	27.1	18.9	15.6	22.3	28.0	21.2	NS
	1986-90	31.8	35.1	25.5	30.8	17.7	18.5	24.6	29.7	22.6	NS
	1991-95	34.2	27.4	24.8	28.8	16.1	22.2	26.4	26.4	22.8	NS
	1996-2000	34.2	36.2	25.2	31.9	18.4	20.3	18.3	25.5	20.6	*
	2001-05	31.2	38.9	24.4	31.5				26.7		
Age 35 - 49	1971-75	31.5	31.8	25.0	29.4				38.2		
	1976-80	34.8	34.3	31.4	33.5	32.0	25.9	22.6	38.7	29.8	NS
	1981-85	41.5	38.7	39.9	40.0	37.0	24.6	41.1	46.7	37.3	NS
	1986-90	49.5	48.1	38.1	45.2	32.2	30.8	40.4	48.9	38.1	NS
	1991-95	49.5	46.8	41.9	46.1	27.9	31.5	38.4	45.1	35.7	(*)
	1996-2000	51.0	50.5	46.2	49.2	37.0	35.1	38.3	43.9	38.6	**
	2001-05	51.8	55.5	43.1	50.1				43.6		
Age 50 - 64	1971-75	43.8	39.4	31.0	38.1				49.3		
	1976-80	48.7	41.6	38.4	42.9	43.9	33.9	32.7	53.5	41.0	NS
	1981-85	51.7	47.1	48.9	49.2	49.2	29.3	55.6	59.4	48.4	NS
	1986-90	60.0	58.6	49.5	56.0	45.0	42.3	55.0	62.3	51.1	NS
	1991-95	62.5	63.2	56.2	60.7	44.8	39.7	55.2	63.2	50.7	NS
	1996-2000	65.3	67.3	62.8	65.1	55.7	48.0	56.7	64.3	56.2	(*)
	2001-05	68.3	73.7	62.0	68.0				64.7		
Age 65 - 79	1971-75	57.7	54.0	40.5	50.7				58.9		
	1976-80	62.7	52.9	50.8	55.5	54.2	55.0	45.4	68.8	55.8	NS
	1981-85	64.5	61.7	61.4	62.5	55.7	50.6	68.1	72.0	61.6	NS
	1986-90	70.8	72.7	63.1	68.9	58.2	59.8	70.3	75.2	65.9	NS
	1991-95	77.3	78.5	70.2	75.3	61.4	59.5	71.7	77.3	67.5	NS
	1996-2000	78.2	78.7	77.8	78.3	73.4	63.2	75.7	79.7	73.0	NS
	2001-05	82.8	85.4	80.1	82.8				79.9		

Table 3 (continued)

WOMEN		Virginia			Virginia, mean	Blended				Blended, mean	Between types P
		Australia	Canada	UK		Austria	Denmark	Germany	US		
Age 20 - 34	1971-75	19.8	25.7	17.4	21.0				26.2		
	1976-80	25.3	24.6	19.7	23.2	24.3	19.1	14.1	29.0	21.6	NS
	1981-85	30.9	27.2	25.1	27.7	22.0	15.6	27.9	29.2	23.7	NS
	1986-90	35.9	38.3	22.0	32.1	21.8	22.4	32.9	36.0	28.3	NS
	1991-95	34.7	37.4	25.7	32.6	18.2	22.2	31.7	29.7	25.4	NS
	1996-2000	36.0	40.8	28.1	35.0	25.7	25.8	20.9	28.8	25.3	*
	2001-05	40.0	45.1	28.4	37.8				30.2		
Age 35 - 49	1971-75	25.0	29.1	18.4	24.2				31.5		
	1976-80	30.1	27.8	23.5	27.1	26.0	19.4	16.3	30.5	23.1	NS
	1981-85	35.5	33.4	31.8	33.6	26.0	17.4	35.0	40.6	29.7	NS
	1986-90	44.3	43.0	30.5	39.2	28.7	24.3	37.7	46.1	34.2	NS
	1991-95	50.3	45.7	36.9	44.3	28.4	30.2	38.2	42.9	34.9	NS
	1996-2000	52.4	49.9	42.0	48.1	37.6	35.0	41.2	43.2	39.3	*
	2001-05	54.3	58.6	39.2	50.7				43.3		
Age 50 - 64	1971-75	26.4	34.4	23.8	28.2				33.2		
	1976-80	34.0	29.4	29.8	31.1	38.2	24.9	22.3	36.2	30.4	NS
	1981-85	45.2	34.7	35.7	38.5	30.2	23.6	42.3	48.6	36.2	NS
	1986-90	48.6	49.1	35.9	44.5	36.0	31.2	43.0	53.9	41.0	NS
	1991-95	58.6	56.4	44.3	53.1	41.8	34.3	45.9	54.7	44.2	NS
	1996-2000	63.4	59.8	51.9	58.4	51.5	43.1	48.6	57.5	50.2	NS
	2001-05	63.5	71.2	54.0	62.9				59.9		
Age 65 - 79	1971-75	39.6	62.5	33.2	45.1				48.8		
	1976-80	46.3	39.1	43.4	43.0	50.1	46.8	29.7	49.0	43.9	NS
	1981-85	59.2	47.6	48.4	51.8	48.9	48.0	52.8	62.1	52.9	NS
	1986-90	63.8	63.3	51.7	59.6	50.9	50.8	59.3	67.4	57.1	NS
	1991-95	71.0	69.9	61.0	67.3	50.2	49.2	54.4	67.8	55.4	(*)
	1996-2000	75.4	71.0	65.1	70.5	65.7	58.2	57.7	69.5	62.8	NS
	2001-05	77.1	81.6	67.2	75.3				73.9		

P: t-test for difference between Virginia and blended groups, coded as *** $p < 0.001$, ** $0.001 < p < 0.01$, * $0.01 < p < 0.05$, (*) $0.05 < p < 0.1$, NS $p \geq 0.1$

Table 4 5-year quit rates – National smoking statistics approach

MEN		Virginia			Virginia, mean	Blended				Blended, mean	Between types P
		Australia	Canada	UK		Austria	Denmark	Germany	US		
Age 35 - 49	1971-75										
	1976-80	9.7	9.2	14.2	11.0	10.2	6.7	9.3	6.6	8.2	NS
	1981-85	10.4	9.9	21.2	13.8	21.1	5.4	20.9	17.7	16.3	NS
	1986-90	21.3	14.7	-8.6	9.1	-22.3	8.5	1.5	14.4	0.5	NS
	1991-95	2.4	9.3	10.0	7.2	0.9	7.9	10.1	1.2	5.0	NS
	1996-2000	11.8	9.6	13.3	11.6	14.7	4.5	7.1	11.2	9.4	NS
	2001-05	8.5	23.2	10.4	14.0		-4.1	6.1	4.9	2.3	NS
Age 50 - 64	1971-75										
	1976-80	15.4	15.3	12.0	14.3	6.7	5.2	12.5	15.8	10.1	NS
	1981-85	16.6	14.2	23.8	18.2	23.3	-0.1	29.0	21.8	18.5	NS
	1986-90	26.2	23.7	-3.7	15.4	-10.4	8.2	4.8	15.7	4.6	NS
	1991-95	13.1	21.4	21.9	18.8	6.5	11.0	14.5	15.0	11.8	(*)
	1996-2000	18.9	19.8	27.3	22.0	31.7	8.7	15.5	20.4	19.1	NS
	2001-05	20.5	31.5	15.0	22.3		-0.3	4.2	16.0	6.6	(*)
Age 65 - 79	1971-75										
	1976-80	23.6	18.4	25.4	22.5	15.4	11.3	19.6	26.8	18.3	NS
	1981-85	11.6	26.7	31.6	23.3	12.5	20.7	30.5	21.0	21.2	NS
	1986-90	32.2	32.7	9.0	24.6	4.8	13.7	12.6	22.5	13.4	NS
	1991-95	27.2	27.1	29.5	28.0	18.8	17.2	27.2	25.6	22.2	NS
	1996-2000	18.0	23.3	38.7	26.6	42.1	13.6	21.9	27.4	26.3	NS
	2001-05	35.3	38.6	32.4	35.4		5.6	-13.3	17.3	3.2	*

Table 4 (continued)

WOMEN	Virginia				Blended				Blended, mean	Between types P	
	Australia	Canada	UK	Virginia, mean	Austria	Denmark	Germany	US			
Age 35 - 49	1971-75										
	1976-80	10.5	1.8	10.8	7.7	-21.1	4.2	18.2	-0.4	0.2	NS
	1981-85	12.0	10.1	19.6	13.9	-7.9	-1.3	23.8	19.3	8.5	NS
	1986-90	17.0	9.8	-6.7	6.7	8.2	10.0	4.5	14.8	9.4	NS
	1991-95	2.4	12.8	14.6	9.9	-8.2	9.9	10.6	-0.4	3.0	NS
	1996-2000	13.7	11.1	17.9	14.2	7.7	7.9	6.4	12.0	8.5	*
	2001-05	13.2	30.7	11.2	18.4		-0.9	-1.3	5.9	1.3	(*)
Age 50 - 64	1971-75										
	1976-80	15.7	5.0	13.1	11.3	-15.8	5.8	16.5	8.4	3.7	NS
	1981-85	23.4	14.9	17.1	18.5	-22.7	1.5	30.5	26.0	8.8	NS
	1986-90	20.7	17.9	3.0	13.9	30.6	-1.6	3.5	17.7	12.5	NS
	1991-95	22.4	19.7	16.7	19.6	6.8	13.1	23.9	10.2	13.5	NS
	1996-2000	24.5	16.4	23.2	21.4	15.8	12.5	7.7	18.1	13.5	(*)
	2001-05	13.4	33.3	15.4	20.7		6.6	8.4	21.1	12.0	NS
Age 65 - 79	1971-75										
	1976-80	20.7	15.1	20.7	18.8	-3.8	20.8	23.7	3.5	11.1	NS
	1981-85	41.8	24.7	16.1	27.5	2.1	15.1	32.6	32.1	20.5	NS
	1986-90	22.6	24.5	20.5	22.6	31.6	8.4	22.3	25.5	21.9	NS
	1991-95	34.1	25.3	28.1	29.2	1.9	24.6	38.1	20.6	21.3	NS
	1996-2000	34.9	26.1	27.1	29.4	26.8	25.5	12.7	25.1	22.5	NS
	2001-05	25.3	40.4	30.3	32.0		16.9	16.0	32.0	21.6	NS

P: t-test for difference between Virginia and blended groups, coded as *** $p < 0.001$, ** $0.001 < p < 0.01$, * $0.01 < p < 0.05$, (*) $0.05 < p < 0.1$, NS $p \geq 0.1$

Table 5 MONICA centres included.

	Abbreviation	Location	Dates		Lower age limit
			Initial	Final	
Virginia	AUS-NEWa	Australia, Newcastle	1983	1994	35
	AUS-PERa	Australia, Perth	1983	1994	25
	CAN-HALa	Canada, Halifax	1985-88	1995	25
	UNK-BELa	UK, Belfast	1983-84	1991-92	25
	UNK-GLAa	UK, Glasgow	1986	1995	25
Blended	CZE-CZEa	Czech Republic	1985	1992	25
	DEN-GLOa	Denmark, Glostrup	1982-84	1991-92	25
	FIN-KUOa	Finland, Kuopio Province	1982	1992	25
	FIN-NKAa	Finland, North Karelia	1982	1992	25
	FIN-TULa	Finland, Turku/Loimaa	1982	1992	25
	GER-AURa	Germany, Augsburg (rural)	1984-85	1994-95	25
	GER-AUUa	Germany, Augsburg (urban)	1984-85	1994-95	25
	GER-BREa	Germany, Bremen	1984	1991-92	25
	ICE-ICEa	Iceland	1983	1993-94	25
	ITA-BRIa	Italy, Area Brianza	1986-87	1993-94	25
	ITA-FRIa	Italy, Friuli	1986	1994	25
	LTU-KAUa	Lithuania, Kaunas	1983-85	1992-93	35
	POL-TARa	Poland, Tarnobrzeg Voivodship	1983-84	1992-93	35
	POL-WARa	Poland, Warsaw	1983-85	1993	35
	SWI-TICa	Switzerland, Ticino	1985-86	1992-93	35
	SWI-VAFa	Switzerland, Vaud/Fribourg	1984-85	1992-93	25
	USA-STAA	USA, Stanford	1979-80	1989-90	25
	YUGO-NOSa	Yugoslavia, Novi Sad	1984	1994-95	25

Table 6 (continued)

Age Survey	25-34			35-44			45-54			55-64			35-64		
	Ini	Mid	Fin	Ini	Mid	Fin	Ini	Mid	Fin	Ini	Mid	Fin	Ini	Mid	Fin
Current prevalence – Women															
AUS-NEWa				27.6	17.7	22.0	22.7	17.7	14.3	18.7	10.7	11.4	23.5	15.9	16.5
AUS-PERa	23.1	21.8	23.5	19.9	17.2	14.3	26.2	29.8	12.4	18.9	19.2	10.0	21.9	22.2	12.5
CAN-HALa	29.4		32.7	26.1		35.8	30.1		20.3	25.2		14.9	27.3		24.9
UNK-BELa	38.5	34.2	30.0	34.2	33.6	27.9	30.6	26.5	22.2	35.3	27.9	22.9	33.2	29.6	24.6
UNK-GLAa	51.2	46.9	35.8	53.6	47.3	42.9	51.6	43.6	42.2	41.1	36.1	36.6	49.7	43.1	41.0
Virginia, mean	35.6	34.3	30.5	32.3	29.0	28.6	32.2	29.4	22.3	27.8	23.5	19.2	31.1	27.7	23.9
CZE-CZEa	36.3	31.0	26.1	33.5	34.1	30.3	15.6	20.0	25.5	9.3	10.6	8.7	20.9	23.0	23.0
DEN-GLOa	55.8	49.5	45.4	45.4	36.8	43.9	47.5	45.5	42.7	35.9	38.8	48.5	43.7	40.4	44.7
FIN-KUOa	22.5	20.1	22.1	12.0	17.6	20.5	11.9	9.0	11.8	5.3	2.9	5.0	10.3	10.8	13.4
FIN-NKAa	21.8	18.3	19.4	11.5	15.7	16.8	8.2	11.3	9.5	5.1	5.4	6.0	8.7	11.5	11.5
FIN-TULa	27.1	24.9	27.1	23.4	25.5	21.1	13.3	10.9	19.1	12.4	12.3	14.4	17.0	16.9	18.7
GER-AURa	25.3	23.9	20.5	16.4	21.5	20.3	11.2	15.8	16.6	6.6	6.2	7.5	12.0	15.5	15.7
GER-AUUa	35.0	34.0	38.7	23.6	38.3	35.4	18.0	22.5	21.9	10.5	17.0	13.4	18.2	27.2	24.9
GER-BREa	49.0	56.3	53.9	36.7	35.2	45.0	25.9	25.5	22.9	21.0	18.1	17.5	28.8	27.4	30.0
ICE-ICEa	45.4	40.2	36.3	47.5	39.5	31.9	31.5	30.5	32.7	30.8	27.4	26.5	37.5	33.2	30.8
ITA-BRIa	30.9	29.1	30.2	24.3	24.8	34.3	19.7	18.0	19.7	12.3	10.5	10.0	19.6	18.7	22.8
ITA-FRIa	28.9	22.0	27.6	31.4	26.6	29.1	21.6	24.1	18.7	21.0	18.4	16.7	25.2	23.6	22.2
LTU-KAUa				3.7	5.3	7.7	3.8	2.7	3.3	3.9	3.3	1.0	3.8	3.9	4.4
POL-TARa				18.2	34.6	39.3	9.0	10.8	12.3	1.7	2.7	4.1	10.7	17.9	20.7
POL-WARa				43.2	53.1	46.3	26.9	32.8	32.4	29.3	23.0	17.3	33.8	38.1	33.9
SWI-TICa				28.0	30.4	28.8	25.0	29.1	27.1	17.0	15.8	21.2	24.1	26.2	26.2
SWI-VAFa	33.0	36.2	33.5	31.0	32.8	32.5	15.0	19.8	21.5	12.6	16.2	17.7	20.6	23.9	24.8
USA-STAA	31.5	20.8	21.4	40.6	21.6	18.2	31.1	24.4	20.3	28.2	18.1	17.3	34.0	21.7	18.7
YUG-NOSa	48.3	48.7	49.0	36.0	38.1	40.9	22.2	20.8	27.0	16.6	11.7	16.9	26.1	25.1	29.8
Blended, mean	35.1	32.5	32.2	28.1	29.5	30.1	19.9	20.8	21.4	15.5	14.4	15.0	21.9	22.5	23.1
Between types P	NS	NS	NS	NS	NS	NS	(*)	NS	NS	*	NS	NS	NS	NS	NS

Table 6 (continued/2)

Age Survey	25-34			35-44			45-54			55-64			35-64		
	Ini	Mid	Fin	Ini	Mid	Fin	Ini	Mid	Fin	Ini	Mid	Fin	Ini	Mid	Fin
Ex prevalence – Men															
AUS-NEWa				26.0	34.2	25.6	30.6	37.6	36.5	31.4	42.3	47.4	29.1	37.4	34.8
AUS-PERa	18.3	23.1	23.0	25.3	28.9	28.9	28.0	27.1	33.7	44.8	37.3	41.5	31.1	30.4	33.7
CAN-HALa	22.5		14.6	33.1		30.4	45.5		30.0	51.2		58.9	41.9		36.9
UNK-BELa	21.6	19.3	13.4	27.5	25.0	23.4	35.1	28.3	35.9	43.9	41.8	38.5	34.3	30.4	31.7
UNK-GLAa	7.7	12.7	11.9	15.7	16.5	17.3	21.6	29.6	18.5	29.2	35.2	38.1	21.1	25.9	22.8
Virginia, mean	17.5	18.4	15.7	25.5	26.2	25.1	32.2	30.7	30.9	40.1	39.2	44.9	31.5	31.0	32.0
CZE-CZEa	11.3	14.3	9.3	17.6	18.9	18.4	26.5	24.1	30.9	33.3	36.0	32.3	24.5	24.8	26.3
DEN-GLOa	10.3	9.2	13.4	14.6	15.5	17.8	16.2	16.0	13.0	19.7	25.8	23.9	16.5	18.2	17.5
FIN-KUOa	17.5	14.9	22.1	23.3	26.1	28.4	30.7	30.6	32.7	40.4	38.0	41.2	30.1	30.6	33.2
FIN-NKAa	22.8	18.1	18.4	27.0	30.7	23.6	33.8	35.8	35.8	49.5	43.8	37.0	35.0	35.7	31.2
FIN-TULa	18.8	16.0	17.8	27.0	26.9	27.8	37.4	36.8	36.2	46.9	49.5	37.8	35.6	35.7	33.5
GER-AURa	12.7	16.7	12.9	21.6	27.9	19.4	22.3	27.2	32.4	34.9	31.9	31.3	25.2	28.8	26.8
GER-AUUa	17.5	15.9	16.2	24.9	23.8	20.6	26.9	28.4	30.7	41.9	40.7	34.4	29.7	29.5	27.5
GER-BREa	18.1	18.4	21.1	31.2	26.5	27.0	30.6	36.1	30.6	44.7	47.6	45.1	34.3	35.0	32.6
ICE-ICEa	23.0	23.6	16.9	32.1	31.5	31.3	33.0	33.0	43.2	42.3	46.3	39.7	35.0	35.7	37.5
ITA-BRIa	16.5	22.0	13.9	20.0	23.1	24.1	26.1	28.8	37.5	39.7	36.5	35.8	26.8	28.4	31.8
ITA-FRIa	14.1	19.3	17.7	30.7	41.0	30.0	29.7	33.7	41.0	49.2	41.8	42.0	34.9	38.7	36.8
LTU-KAUa				15.0	15.8	18.4	23.0	20.0	23.0	32.0	22.9	25.9	22.0	19.1	22.2
POL-TARa				13.1	9.9	19.1	19.4	24.8	21.9	25.4	32.3	35.9	18.4	20.2	24.1
POL-WARa				14.4	18.2	16.4	23.6	24.8	26.6	31.4	31.3	41.0	21.6	23.7	25.5
SWI-TICa				19.0	30.1	20.4	25.6	34.9	30.6	30.7	38.7	30.5	24.1	34.0	26.4
SWI-VAFa	13.9	14.7	11.5	29.3	22.1	25.4	26.7	27.7	40.3	29.6	31.0	32.5	28.5	26.3	32.2
USA-STAA	22.4	20.1	19.3	23.6	42.6	26.9	37.0	38.1	42.9	48.6	53.8	54.2	34.1	43.8	39.5
YUG-NOSa	7.2	10.1	7.0	16.4	19.1	19.4	25.9	19.5	17.6	34.5	31.6	30.9	24.0	22.5	21.7
Blended, mean	16.2	16.7	15.5	22.3	25.0	23.0	27.5	28.9	31.5	37.5	37.8	36.2	27.8	29.5	29.2
Between types P	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	(*)	NS	NS	NS

Table 6 (continued/3)

Survey	25-34			35-44			45-54			55-64			35-64			
	Age	Ini	Mid	Fin	Ini	Mid	Fin	Ini	Mid	Fin	Ini	Mid	Fin	Ini	Mid	Fin
Ex prevalence – Women																
AUS-NEWa				9.6	17.8	25.7	8.9	18.6	25.3	15.3	21.0	23.2	10.7	18.9	25.1	
AUS-PERa	20.4	18.8	22.1	16.7	24.6	22.9	15.9	17.3	29.9	16.3	19.2	15.0	16.3	20.5	23.4	
CAN-HALa	25.9		19.6	25.2		24.2	23.8		32.9	33.0		41.5	26.7		31.5	
UNK-BELa	16.9	12.0	17.5	15.1	18.0	18.0	15.4	12.8	19.6	15.9	16.6	18.9	15.4	15.9	18.8	
UNK-GLAa	8.3	11.2	9.6	8.7	13.5	14.9	11.3	17.6	22.4	15.2	24.8	23.9	11.2	17.6	19.8	
Virginia, mean	17.9	14.0	17.2	15.1	18.5	21.1	15.1	16.6	26.0	19.1	20.4	24.5	16.1	18.2	23.7	
CZE-CZEa	9.1	8.8	6.8	7.9	6.8	7.0	7.7	6.4	5.1	5.8	5.0	8.0	7.6	6.4	6.6	
DEN-GLOa	9.3	16.3	13.2	7.3	12.4	17.6	13.6	7.9	12.6	16.1	14.4	13.6	11.7	11.2	14.8	
FIN-KUOa	16.9	18.1	18.3	10.4	13.9	22.5	5.2	7.3	8.7	4.2	5.8	7.0	7.1	9.8	14.4	
FIN-NKAa	16.0	19.6	24.1	9.6	13.9	18.5	5.6	10.2	9.0	3.2	5.4	4.8	6.7	10.7	12.2	
FIN-TULa	16.5	16.9	16.1	10.6	14.6	20.7	8.6	12.3	15.0	6.9	8.6	9.1	9.1	12.7	16.1	
GER-AURa	12.1	13.6	16.2	13.9	11.5	16.9	6.1	9.2	12.5	6.3	6.9	5.1	9.4	9.7	12.7	
GER-AUUa	11.3	13.0	13.4	10.5	15.3	22.6	10.5	12.4	16.4	6.8	11.2	9.8	9.7	13.8	18.1	
GER-BREa	18.4	26.8	18.5	22.8	23.5	21.7	10.2	13.3	19.3	18.3	11.9	16.8	17.7	17.5	20.6	
ICE-ICEa	17.4	18.1	19.5	14.3	21.9	25.9	19.1	18.8	27.8	20.1	17.4	24.4	17.4	19.9	26.2	
ITA-BRIa	9.0	11.5	12.5	5.8	11.0	17.8	4.2	5.4	8.2	1.5	4.5	4.3	4.3	7.7	11.8	
ITA-FRIa	12.6	22.5	9.0	13.0	12.2	20.6	8.5	9.5	19.8	7.0	8.2	15.3	10.1	10.3	19.2	
LTU-KAUa				2.9	2.0	3.3	0.9	1.0	2.8	4.3	1.5	3.4	2.5	1.5	3.2	
POL-TARa				3.0	6.6	10.4	2.5	2.9	7.4	1.5	2.7	2.9	2.5	4.8	8.3	
POL-WARa				9.7	8.0	15.2	9.6	10.2	16.4	12.4	11.1	15.6	10.5	9.7	16.2	
SWI-TICa				11.9	15.0	17.1	4.0	8.3	7.6	11.7	8.0	12.7	9.1	11.1	12.7	
SWI-VAFa	14.4	20.3	15.8	10.9	14.7	14.7	12.5	13.0	18.6	5.9	8.4	8.9	10.5	12.9	14.8	
USA-STAA	18.9	19.4	22.1	17.0	27.8	23.6	16.9	26.8	27.2	20.7	31.3	34.6	17.9	28.3	27.7	
YUG-NOSa	4.8	3.1	8.9	5.1	2.6	8.7	5.8	4.3	8.3	7.1	6.6	5.3	5.9	4.1	8.1	
Blended, mean	13.3	16.3	15.3	10.4	13.0	16.9	8.4	10.0	13.5	8.9	9.4	11.2	9.4	11.2	14.7	
Between types																
P	NS	NS	NS	NS	(*)	NS	(*)	**	**	*	**	*	(*)	***	*	

Table 6 (continued/5)

Age: Survey:	25-34			35-44			45-54			55-64			35-64			
	Ini	Mid	Fin	Ini	Mid	Fin	Ini	Mid	Fin	Ini	Mid	Fin	Ini	Mid	Fin	
Quit ratio – Women																
AUS-NEW _a				25.9	50.1	54.0	28.2	51.2	63.9	45.1	66.2	67.1	31.2	54.3	60.3	
AUS-PER _a	46.9	46.3	48.5	45.5	58.9	61.7	37.8	36.7	70.7	46.3	49.9	60.0	42.7	48.0	65.2	
CAN-HAL _a	46.8		37.5	49.1		40.3	44.2		61.8	56.6		73.6	49.5		55.9	
UNK-BEL _a	30.5	26.0	36.8	30.6	34.9	39.2	33.5	32.6	46.8	31.1	37.3	45.2	31.7	34.9	43.3	
UNK-GLA _a	13.9	19.3	21.1	13.9	22.2	25.7	18.0	28.8	34.7	27.0	40.7	39.5	18.4	29.0	32.6	
Virginia, mean	34.5	30.5	36.0	33.0	41.5	44.2	32.3	37.3	55.6	41.2	48.5	57.1	34.7	41.6	51.5	
CZE-CZE _a	20.0	22.1	20.6	19.0	16.6	18.8	33.0	24.2	16.7	38.4	32.3	47.9	26.7	21.8	22.3	
DEN-GLO _a	14.3	24.8	22.6	13.9	25.2	28.6	22.3	14.8	22.8	30.9	27.1	21.9	21.1	21.7	24.9	
FIN-KUO _a	43.0	47.4	45.3	46.2	44.1	52.4	30.4	44.8	42.4	44.2	66.7	58.3	41.0	47.6	51.6	
FIN-NKA _a	42.2	51.7	55.5	45.5	47.0	52.4	40.6	47.2	48.6	39.0	50.0	44.4	43.5	48.2	51.5	
FIN-TUL _a	37.8	40.4	37.3	31.2	36.4	49.5	39.3	53.0	44.0	35.6	41.1	38.7	34.9	42.9	46.3	
GER-AUR _a	32.4	36.3	44.1	45.9	34.8	45.4	35.3	36.8	43.0	48.8	53.1	40.5	43.7	38.5	44.7	
GER-AUU _a	24.4	27.7	25.7	30.8	28.5	39.0	36.8	35.5	42.7	39.3	39.9	42.2	34.8	33.7	42.1	
GER-BRE _a	27.3	32.3	25.5	38.3	40.0	32.5	28.2	34.3	45.7	46.6	39.7	49.0	38.1	39.0	40.7	
ICE-ICE _a	27.7	31.0	34.9	23.1	35.7	44.8	37.7	38.1	46.0	39.5	38.8	48.0	31.6	37.5	46.0	
ITA-BRI _a	22.6	28.4	29.3	19.3	30.7	34.2	17.6	23.1	29.4	10.9	30.0	29.9	18.1	29.2	34.0	
ITA-FRI _a	30.4	50.6	24.5	29.3	31.5	41.4	28.2	28.3	51.4	25.0	30.8	47.8	28.6	30.4	46.4	
LTU-KAU _a				43.9	27.4	30.0	19.1	27.0	46.7	53.1	31.3	77.3	39.7	27.8	42.1	
POL-TAR _a				14.2	16.0	20.9	21.7	21.0	37.6	46.9	50.0	40.8	18.9	21.1	28.6	
POL-WAR _a				18.3	13.1	24.7	26.4	23.7	33.6	29.7	32.6	47.4	23.7	20.3	32.3	
SWI-TIC _a				29.8	33.0	37.3	13.8	22.2	21.9	40.9	33.6	37.5	27.5	29.8	32.6	
SWI-VAF _a	30.4	35.9	32.0	26.0	30.9	31.1	45.6	39.6	46.4	31.9	34.1	33.5	33.8	35.1	37.4	
USA-STAA _a	37.6	48.1	50.9	29.5	56.3	56.5	35.2	52.3	57.3	42.3	63.4	66.7	34.4	56.6	59.7	
YUG-NOSA _a	9.1	6.0	15.4	12.4	6.4	17.6	20.8	17.1	23.5	30.0	36.1	23.9	18.4	14.0	21.4	
Blended, mean	28.5	34.5	33.1	28.7	30.8	36.5	29.6	32.4	38.9	37.4	40.6	44.2	31.0	33.1	39.1	
Between types																
P	NS	NS	NS	NS	NS	NS	NS	NS	(*)	NS	NS	NS	NS	NS	NS	

Survey: Ini=initial survey (about 1983-85), Mid= middle survey, Fin=final survey (about 1993-95), see Table 5. Centre: see Table 5.

All results refer to daily cigarette smoking

P: t-test for difference between Virginia and blended groups, coded as *** $p < 0.001$, ** $0.001 < p < 0.01$, * $0.01 < p < 0.05$, (*) $0.05 < p < 0.1$, NS $p \geq 0.1$

Table 7 10-year quit rates – MONICA

Centre	Men			Women			
	Age:	35-44	45-54	55-64	35-44	45-54	55-64
AUS-NEWa			28.4	53.6		48.2	49.8
AUS-PERa		28.5	27.7	37.0	38.1	37.7	61.8
CAN-HALa		-6.8	-19.6	10.4	-21.8	22.2	50.5
UNK-BELa		18.1	10.3	25.9	27.5	35.1	25.2
UNK-GLAa		1.0	11.7	34.6	16.2	21.3	29.1
Virginia, mean		10.2	11.7	32.3	15.0	32.9	43.3
CZE-CZEa		18.6	24.0	36.3	16.5	23.9	44.2
DEN-GLOa		18.6	-6.8	25.1	21.3	5.9	-2.1
FIN-KUOa		16.8	0.8	45.4	8.9	1.7	58.0
FIN-NKAa		12.2	13.3	26.1	22.9	17.4	26.8
FIN-TULa		25.5	-2.8	23.8	22.1	18.4	-8.3
GER-AURa		25.6	35.7	35.7	19.8	-1.2	33.0
GER-AUUa		8.9	13.2	32.7	-1.1	7.2	25.6
GER-BREa		19.9	3.2	25.8	8.2	37.6	32.4
ICE-ICEa		28.5	37.9	37.3	29.7	31.2	15.9
ITA-BRIa		30.8	29.6	23.9	-11.0	18.9	49.2
ITA-FRIa		24.3	24.5	38.1	-0.7	40.4	22.7
LTU-KAUa			27.5	32.6		10.8	73.7
POL-TARa			9.1	32.1		32.4	54.4
POL-WARa			24.7	36.0		25.0	35.7
SWI-TICa			30.1	8.8		3.2	15.2
SWI-VAFa		8.4	41.8	28.5	1.5	30.6	-18.0
USA-STAA		29.6	47.4	38.1	42.2	50.0	44.4
YUG-NOSa		15.1	19.3	24.1	15.3	25.0	23.9
Blended, mean		20.2	20.7	30.6	14.0	21.0	29.3
Between types							
P		NS	NS	NS	NS	(*)	NS

Calculated from current smoker prevalences at initial survey (about 1983-85) and final survey (about 1993-95), see Table 6

Centre: see Table 5.

P: t-test for difference between Virginia and blended groups, coded as *** $p < 0.001$, ** $0.001 < p < 0.01$, * $0.01 < p < 0.05$, (*) $0.05 < p < 0.1$, NS $p \geq 0.1$

Table 8 (continued)

	Men					Women				
	15-24	25-39	40-54	55+	Total	15-24	25-39	40-54	55+	Total
Ex prevalence										
Great Britain	5.1	21.6	22.2	49.3	26.5	13.4	14.2	35.4	34.5	25.6
Ireland	6.8	16.1	19.4	36.0	19.5	5.9	17.9	18.4	23.3	16.8
N Ireland	13.8	12.7	31.7	42.7	24.5	9.9	18.1	26.6	17.8	18.0
Virginia, mean	8.5	16.8	24.4	42.6	23.5	9.7	16.7	26.8	25.2	20.1
Austria	1.7	10.9	12.0	33.5	15.4	5.7	16.3	11.8	11.6	12.1
Denmark	12.1	17.2	20.1	34.1	21.5	13.4	15.4	22.1	23.2	19.1
Finland	17.0	21.4	29.2	41.5	27.9	13.3	28.3	18.1	16.3	19.5
Germany (W)	6.4	16.3	24.0	37.6	22.2	10.0	13.5	25.3	10.1	14.5
Germany (E)	8.0	19.2	20.9	36.1	21.9	2.9	19.4	14.3	13.2	13.6
Greece	2.9	11.5	18.5	33.5	17.7	6.2	4.9	2.5	6.8	5.2
Italy	3.1	14.6	30.7	44.3	24.0	3.6	10.2	12.8	12.3	10.3
Luxembourg	3.3	12.2	25.2	42.5	21.1	4.4	17.3	19.2	5.2	11.5
Blended, mean	6.8	15.4	22.6	37.9	21.5	7.4	15.7	15.8	12.3	13.2
Between types, P	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Quit ratio										
Great Britain	13.5	35.0	32.9	61.6	41.7	25.9	26.2	52.4	63.9	45.4
Ireland	16.7	28.5	33.0	57.5	35.7	15.3	34.0	41.5	50.3	36.7
N Ireland [†]	29.6	20.7	53.0	58.4	40.7	23.1	29.2	47.0	47.7	36.9
Virginia, mean	19.9	28.1	39.6	59.2	39.4	21.5	29.8	47.0	53.9	39.7
Austria	4.3	17.0	23.5	57.7	27.9	15.9	31.0	28.5	52.7	32.5
Denmark	24.0	26.2	28.2	43.4	31.9	24.5	25.6	31.2	47.1	33.0
Finland	41.0	36.9	45.4	75.1	49.4	35.1	47.1	41.4	77.4	49.2
Germany (W)	15.2	25.6	39.2	54.5	36.9	28.8	27.1	50.0	53.7	40.2
Germany (E)	16.7	28.3	32.2	55.7	34.8	6.6	42.9	52.1	73.7	43.5
Greece	5.8	14.7	24.2	48.7	25.6	15.1	8.9	8.2	46.2	15.3
Italy	8.1	25.8	41.6	59.3	38.9	11.6	21.0	27.9	48.1	27.7
Luxembourg [†]	7.4	23.9	40.4	59.7	36.8	11.6	34.9	40.4	20.6	29.4
Blended, mean	15.3	24.8	34.3	56.7	35.3	18.6	29.8	35.0	52.4	33.8
Between types, P	NS	NS	NS	NS	NS	NS	NS	(*)	NS	NS

[†] Based on less than 20 respondents for at least one sex × age group.
See text §4.2.1 for definitions of current and ex smokers

Table 9 Quit rates – EB43, 1995

	Men				Women				
	25-39	40-54	55+	Total (25+)	25-39	40-54	55+	Total (25+)	
5-year quit rate									
Great Britain	19.5	10.5	18.9	16.5	17.1	21.7	24.2	20.6	
Ireland	12.9	13.7	26.0	16.8	22.7	25.5	24.4	23.9	
N Ireland †	9.3	24.8	9.6	13.3	23.7	17.0	29.2	23.6	
Virginia, mean	13.9	16.3	18.2	15.5	21.2	21.4	25.9	22.7	
Austria	14.4	4.0	12.0	11.0	20.2	13.9	10.1	16.6	
Denmark	20.1	16.3	14.1	17.2	10.9	16.0	11.7	12.8	
Finland †	23.0	22.6	27.0	23.4	24.2	13.7	17.2	19.7	
Germany (W) †	20.2	16.5	9.6	16.2	14.7	25.8	9.1	18.0	
Germany (E) †	21.1	12.8	10.7	16.4	28.0	22.9	35.3	27.9	
Greece †	10.4	7.5	19.7	11.9	6.4	5.2	18.5	7.6	
Italy	15.7	9.5	19.1	14.8	12.6	12.1	14.7	12.9	
Luxembourg †	3.0	26.4	20.2	15.2	21.0	17.9	0.0	14.5	
Blended, mean	16.0	14.5	16.5	15.8	17.2	15.9	14.6	16.2	
Between types, P	NS	NS	NS	NS	NS	NS	*	*	
10-year quit rate									
Great Britain	25.2	15.1	23.0	21.4	20.8	32.9	31.9	27.8	
Ireland	19.8	17.7	35.1	23.5	29.7	29.5	31.9	30.3	
N Ireland †	17.0	30.1	16.7	20.2	26.7	31.6	33.7	30.0	
Virginia, mean	20.7	21.0	24.9	21.7	25.7	31.4	32.5	29.4	
Austria	15.3	10.9	22.5	15.5	26.5	19.4	22.9	23.7	
Denmark	21.6	20.1	19.7	20.5	23.9	20.0	17.8	21.0	
Finland †	30.8	23.9	33.8	28.6	37.9	17.6	36.9	31.1	
Germany (W)	22.4	26.8	28.5	25.6	22.0	41.9	23.4	30.5	
Germany (E) †	26.7	24.2	25.5	25.6	38.6	37.9	51.7	40.8	
Greece †	13.0	18.3	26.5	18.4	8.9	5.2	34.0	11.6	
Italy	22.6	22.8	31.0	25.2	18.2	22.7	34.1	23.6	
Luxembourg †	14.1	32.7	29.8	24.3	28.7	33.8	0.0	23.8	
Blended, mean	20.8	22.5	27.2	23.0	25.6	24.8	27.6	25.8	
Between types, P	NS	NS	NS	NS	NS	NS	NS	NS	

† Based on less than 20 respondents for at least one sex × age group.
15-24 year olds omitted – see text §4.2.2

Table 10 Wish or intent to stop or cut down among current smokers – EB43, 1995

	Men					Women				
	15-24	25-39	40-54	55+	Total	15-24	25-39	40-54	55+	Total
Wish to stop[‡]										
Great Britain	24.0	37.9	49.8	10.8	33.1	47.8	40.9	38.3	55.4	44.5
Ireland	26.0	56.8	18.8	16.7	28.2	41.8	36.8	69.0	50.4	46.9
N Ireland	31.0	23.5	18.2	65.9	29.8	66.5	62.8	71.1	23.5	58.9
Virginia, mean	27.0	39.4	28.9	31.2	30.4	52.1	46.8	59.5	43.1	50.1
Austria	5.5	17.3	15.1	27.7	16.0	29.8	21.9	24.9	26.4	24.6
Denmark	28.2	44.3	28.8	33.2	33.9	34.5	31.9	40.5	32.9	34.8
Finland	54.1	41.7	30.6	53.9	42.0	47.3	37.8	67.5	74.4	52.8
Germany (W)	21.9	18.6	23.5	6.6	18.0	0.0	25.1	16.4	39.9	21.3
Germany (E)	20.3	20.0	33.6	23.6	23.4	21.7	12.0	41.1	25.0	21.7
Greece	12.3	22.5	45.5	50.2	33.4	27.9	24.7	31.9	57.9	29.5
Italy	43.6	37.3	24.3	16.7	30.8	26.0	14.4	39.0	13.3	24.1
Luxembourg	36.5	25.7	24.4	44.3	32.6	17.1	18.2	46.7	46.9	30.6
Blended, mean	27.8	28.4	28.2	32.0	28.8	25.5	23.3	38.5	39.6	29.9
Between types, P	NS	NS	NS	NS	NS	*	(*)	NS	NS	*
Wish to stop or cut down[‡]										
Great Britain	46.1	56.4	58.7	43.1	52.4	65.0	49.1	63.8	69.7	59.1
Ireland	63.9	76.2	87.2	32.8	65.6	77.2	68.1	93.3	64.9	73.8
N Ireland	31.0	43.2	40.2	100.0	49.5	66.5	81.4	71.1	23.5	66.5
Virginia, mean	47.0	58.6	62.0	58.6	55.8	69.6	66.2	76.1	52.7	66.5
Austria	26.0	36.7	31.5	45.1	34.7	52.6	44.9	43.1	45.5	45.7
Denmark	63.8	71.7	47.9	47.5	57.2	46.2	57.6	67.7	66.2	60.0
Finland	87.9	70.5	49.3	59.3	64.0	80.7	62.1	71.3	74.4	70.2
Germany (W)	52.7	29.2	34.8	21.4	33.7	0.0	57.7	35.1	62.9	45.0
Germany (E)	58.0	48.7	64.6	53.5	53.9	48.5	43.1	41.1	45.8	45.2
Greece	42.5	57.0	77.1	78.2	65.0	61.1	74.6	65.2	57.9	68.1
Italy	60.2	51.6	56.8	50.6	54.7	39.3	38.7	57.4	30.6	43.0
Luxembourg	36.5	34.6	32.4	55.6	40.5	27.8	35.8	58.2	46.9	40.5
Blended, mean	53.5	50.0	49.3	51.4	50.4	44.5	51.8	54.9	53.8	52.2
Between types, P	NS	NS	NS	NS	NS	*	NS	NS	NS	(*)

Table 10 (continued)

	Men					Women				
	15-24	25-39	40-54	55+	Total	15-24	25-39	40-54	55+	Total
Intend to stop[‡]										
Great Britain	30.6	36.3	14.0	14.6	24.6	24.3	25.0	29.2	21.9	25.0
Ireland	35.9	22.9	18.9	11.7	22.3	26.8	28.4	32.7	12.3	25.4
N Ireland	11.2	18.7	0.0	0.0	9.6	0.0	25.1	27.8	0.0	14.6
Virginia, mean	25.9	26.0	11.0	8.8	18.9	17.0	26.2	29.9	11.4	21.7
Austria	21.2	18.9	14.3	4.9	15.6	16.4	21.8	20.3	10.3	18.9
Denmark	22.7	33.3	37.7	20.4	30.0	28.1	39.2	26.6	22.0	30.5
Finland	32.9	32.4	32.9	10.5	31.1	32.0	37.1	56.5	39.2	42.2
Germany (W)	22.5	10.5	10.6	22.1	15.8	22.9	27.4	6.1	12.8	19.2
Germany (E)	27.1	0.0	4.7	9.2	9.4	27.7	30.5	17.9	0.0	25.6
Greece	16.9	24.2	14.1	31.3	21.7	23.3	23.9	16.4	35.6	23.6
Italy	48.9	25.8	30.0	38.7	34.3	19.8	16.2	27.6	40.4	24.8
Luxembourg	25.0	70.4	8.2	23.3	31.6	23.5	27.6	25.1	100.0	33.7
Blended, mean	27.2	26.9	19.0	20.1	23.7	24.2	28.0	24.6	32.5	27.3
Between types, P	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Intend to stop or cut down[‡]										
Great Britain	60.6	55.5	56.8	38.8	52.7	44.7	35.4	45.5	42.7	41.8
Ireland	69.3	50.5	50.3	51.1	53.7	62.6	56.0	49.8	32.4	51.6
N Ireland	43.5	46.9	24.4	0.0	31.4	48.7	61.4	27.8	30.6	42.4
Virginia, mean	57.8	51.0	43.8	30.0	45.9	52.0	51.0	41.0	35.2	45.3
Austria	32.4	35.5	41.1	16.8	33.4	48.8	37.8	43.6	10.3	38.8
Denmark	50.0	46.2	48.9	26.4	42.6	49.7	44.8	37.6	36.4	42.1
Finland	77.8	61.1	64.6	21.0	61.7	53.1	67.9	56.5	80.3	63.8
Germany (W)	37.0	34.6	21.5	38.4	33.1	57.5	39.8	21.3	28.4	39.0
Germany (E)	63.9	37.2	37.8	30.5	42.4	27.7	54.6	33.3	0.0	39.3
Greece	65.0	51.5	63.4	55.0	57.8	54.2	58.4	37.6	67.6	54.3
Italy	69.1	62.3	45.4	43.7	55.0	30.3	57.7	48.1	72.1	53.7
Luxembourg	40.6	70.4	26.9	75.6	47.8	23.5	81.3	66.9	100.0	64.7
Blended, mean	54.5	49.8	43.7	38.4	46.7	43.1	55.3	43.1	49.4	49.5
Between types, P	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

[‡] Based on less than 20 respondents for at least one sex × age group in every country.

Persons who replied “don’t know” are combined with those who did not wish/intend to stop or cut down

Table 11 (continued)

	Men					Women				
	15-24	25-39	40-54	55+	Total	15-24	25-39	40-54	55+	Total
Latest attempt lasted less than 1 month[†]										
Great Britain	39.1	30.7	35.7	18.6	30.2	52.0	29.5	26.7	21.6	32.8
Ireland	37.8	51.8	33.5	34.4	40.5	57.5	41.5	53.0	46.5	48.6
N Ireland	15.9	27.2	0.0	40.0	23.5	33.1	41.1	33.5	39.0	37.3
Virginia, mean	31.0	36.5	23.1	31.0	31.4	47.5	37.3	37.7	35.7	39.6
Austria	37.4	27.0	43.9	17.0	31.8	72.0	27.4	27.5	11.3	35.1
Denmark	47.7	35.3	21.8	32.6	33.5	46.3	22.9	29.7	37.2	31.8
Finland	48.1	27.0	24.8	17.4	28.4	48.3	20.8	36.7	21.5	31.1
Germany (W)	36.1	38.2	52.7	39.5	41.7	20.2	25.1	29.9	27.3	25.8
Germany (E)	68.8	29.4	38.0	26.6	36.9	63.1	13.3	17.7	0.0	31.4
Greece	59.5	43.2	37.4	21.3	39.5	44.7	11.8	18.1	0.0	19.8
Italy	38.6	38.4	44.1	36.8	39.3	48.5	28.1	14.8	0.0	24.7
Luxembourg	54.3	41.4	12.0	46.6	40.0	53.9	22.2	11.4	33.3	28.3
Blended, mean	48.8	35.0	34.4	29.7	36.4	49.6	21.4	23.2	16.3	28.5
Between types, P	NS	NS	NS	NS	NS	NS	*	NS	(*)	NS
Latest attempt lasted 1 year or more[‡]										
Great Britain	13.4	19.4	26.0	30.5	23.3	11.2	22.9	10.3	0.0	14.0
Ireland	7.9	14.7	12.8	4.1	10.5	6.1	23.0	10.2	12.1	14.2
N Ireland	0.0	16.9	25.2	21.2	15.4	0.0	25.1	33.3	0.0	15.9
Virginia, mean	7.1	17.0	21.3	18.6	16.4	5.8	23.7	17.9	4.0	14.7
Austria	0.0	25.2	15.9	49.0	22.4	9.8	22.9	26.1	9.4	19.2
Denmark	10.1	16.5	35.7	9.4	18.9	8.7	9.6	26.2	23.4	16.1
Finland	9.5	25.0	25.5	15.2	21.8	4.6	35.9	25.7	37.9	26.9
Germany (W)	9.2	16.1	11.0	13.7	13.0	0.0	32.9	38.9	72.7	32.0
Germany (E)	10.0	8.8	30.2	25.0	18.9	0.0	42.3	63.3	100.0	32.0
Greece	4.6	9.4	26.8	29.0	18.1	12.5	18.7	31.7	0.0	18.4
Italy	0.0	29.3	26.2	28.9	22.8	11.5	27.2	36.8	11.6	24.8
Luxembourg	16.7	8.3	14.9	10.0	12.2	10.4	16.1	30.9	16.1	18.5
Blended, mean	7.5	17.3	23.3	22.5	18.5	7.2	25.7	34.9	33.9	23.5
Between types, P	NS	NS	NS	NS	NS	NS	NS	NS	*	**

[†] Based on less than 20 respondents for at least one sex × age group.

[‡] Based on less than 20 respondents for at least one sex × age group in every country.

Table 12 Earlier unsuccessful quit attempts among ex smokers – EB43, 1995

	Men					Women				
	15-24	25-39	40-54	55+	Total	15-24	25-39	40-54	55+	Total
At least one unsuccessful quit attempt ‡										
Great Britain	68.5	50.3	44.6	42.3	45.6	39.0	51.0	42.6	37.6	41.1
Ireland	59.3	50.3	55.0	38.7	46.9	35.3	59.3	50.4	44.8	49.7
N Ireland	80.1	35.8	38.8	36.4	42.9	34.8	38.1	22.3	55.2	38.2
Virginia, mean	69.3	45.5	46.1	39.1	45.1	36.4	49.5	38.4	45.9	43.0
Austria	0.0	67.3	36.7	22.2	34.6	23.9	29.8	26.6	10.1	22.2
Denmark	91.7	64.5	57.0	23.4	48.0	73.0	56.3	44.0	17.6	39.6
Finland	32.9	47.7	59.7	44.0	48.4	50.8	48.0	40.2	15.8	37.4
Germany (W)	42.8	35.9	35.3	26.7	31.7	36.0	41.0	45.5	19.8	36.8
Germany (E)	0.0	24.9	18.8	25.6	22.1	0.0	30.3	36.3	25.0	28.9
Greece	33.8	24.3	33.3	13.6	21.2	17.0	11.4	0.0	28.2	18.3
Italy	26.9	69.1	38.0	39.9	44.0	0.0	49.1	25.4	27.5	30.3
Luxembourg	0.0	15.3	60.4	6.6	21.7	46.0	20.0	23.8	0.0	20.3
Blended, mean	28.5	43.6	42.4	25.3	34.0	30.8	35.7	30.2	18.0	29.2
Between types, P	**	NS	NS	*	*	NS	NS	NS	*	*
At least two unsuccessful quit attempts ‡										
Great Britain	46.5	30.4	28.1	29.1	29.9	15.1	33.0	17.6	27.5	24.3
Ireland	36.2	32.5	33.4	28.0	31.0	14.3	36.4	18.6	26.7	26.7
N Ireland	80.1	0.0	29.2	28.8	31.5	34.8	25.3	9.5	34.0	24.3
Virginia, mean	54.3	21.0	30.3	28.6	30.8	21.4	31.6	15.2	29.4	25.1
Austria	0.0	42.9	9.0	16.2	20.3	0.0	20.8	18.5	6.8	14.1
Denmark	77.1	47.7	38.3	8.8	32.0	42.4	35.0	34.7	11.0	26.0
Finland	9.6	30.2	34.2	23.5	26.9	33.3	28.7	32.5	4.3	23.2
Germany (W)	29.6	28.0	13.7	8.2	14.8	0.0	18.3	18.1	0.0	11.3
Germany (E)	0.0	16.5	13.5	14.7	13.9	0.0	5.5	14.2	21.9	13.0
Greece	0.0	7.3	11.0	11.8	10.4	0.0	0.0	0.0	9.8	4.1
Italy	26.9	37.4	23.7	20.2	24.3	0.0	16.9	20.3	7.8	13.1
Luxembourg	0.0	10.7	42.3	2.5	14.1	0.0	0.0	23.8	0.0	9.3
Blended, mean	17.9	27.6	23.2	13.2	19.6	9.5	15.7	20.3	7.7	14.3
Between types, P	(*)	NS	NS	***	**	NS	*	NS	***	**

‡ Based on less than 20 respondents for at least one sex × age group in every country.

Table 13 Smoking prevalence and quit ratios – EB66, 2006

	Men					Women				
	15-24	25-39	40-54	55+	Total	15-24	25-39	40-54	55+	Total
Manufactured cigarettes – current prevalence										
Great Britain	19.5	38.8	17.0	9.3	21.1	37.2	29.5	30.0	18.3	26.8
Ireland	19.3	34.5	29.7	16.4	25.7	33.4	29.9	34.0	21.8	29.4
Malta †	20.8	28.1	31.4	23.6	26.4	40.1	28.6	17.5	9.5	21.1
N Ireland †	20.6	29.6	46.3	17.3	28.8	64.4	35.8	37.8	20.9	35.6
Virginia, mean	20.0	32.8	31.1	16.7	25.5	43.8	31.0	29.8	17.6	28.2
Austria	32.3	47.5	41.6	18.4	34.9	40.3	31.6	27.1	8.2	23.3
Bulgaria	41.4	54.6	43.2	31.4	42.1	44.6	48.3	35.8	8.5	29.7
Croatia	44.0	47.2	41.1	31.9	40.5	30.4	35.9	32.2	10.2	24.7
Czech Rep	25.5	38.9	45.0	19.5	33.0	29.9	30.0	25.7	12.4	23.1
Denmark	25.5	28.8	36.1	23.6	28.6	17.8	26.3	24.5	26.6	24.8
Estonia	47.7	45.6	49.0	32.1	43.3	21.3	36.1	34.7	10.2	24.0
Finland	24.1	35.1	22.1	13.5	22.6	30.1	21.0	31.5	8.6	20.2
Germany (W)	27.8	31.2	34.0	16.4	26.5	32.7	35.6	27.1	9.9	22.7
Germany (E)	56.4	47.7	35.8	12.0	34.2	37.7	34.5	29.7	10.0	23.7
Greece	29.9	50.3	57.1	35.3	43.7	51.3	46.4	42.4	14.7	35.2
Hungary	27.8	56.7	46.2	22.0	38.8	24.8	38.0	42.4	12.1	27.9
Italy	18.7	45.9	39.2	21.8	32.6	29.0	24.8	24.8	14.3	21.3
Latvia	46.6	61.2	58.2	39.1	52.2	33.5	26.7	17.0	9.0	20.8
Lithuania	45.4	54.0	65.0	33.0	49.7	29.4	30.8	27.1	3.6	20.3
Luxembourg	31.2	35.9	25.8	16.3	26.7	26.3	28.4	21.9	16.0	22.3
Poland	27.0	45.6	42.3	43.1	40.3	25.6	36.7	38.0	19.6	29.6
Romania	34.6	52.5	50.1	30.6	42.6	26.5	30.2	23.4	5.6	19.9
Slovakia	29.3	37.4	39.2	18.8	32.1	19.8	27.2	23.6	5.5	18.6
Slovenia	31.7	36.9	21.5	11.4	24.6	29.6	22.1	32.4	8.7	21.1
Blended, mean	34.0	44.9	41.7	24.8	36.3	30.6	32.1	29.5	11.2	23.9
Between types, P	***	**	NS	(*)	***	NS	NS	NS	NS	NS

Table 13 (continued/2)

	Men					Women				
	15-24	25-39	40-54	55+	Total	15-24	25-39	40-54	55+	Total
Current prevalence										
Great Britain	26.8	44.7	37.4	24.0	33.6	42.3	36.2	37.0	20.8	31.9
Ireland	21.1	35.4	35.6	19.0	28.5	33.4	31.1	34.0	21.8	29.8
Malta †	20.8	32.0	31.4	29.0	28.9	40.1	30.3	17.5	10.5	21.8
N Ireland †	20.6	34.0	47.7	22.5	31.8	67.0	39.8	41.3	20.9	37.8
Virginia, mean	22.3	36.5	38.0	23.6	30.7	45.7	34.3	32.4	18.5	30.3
Austria	35.5	50.2	43.7	25.1	38.7	40.3	34.9	27.1	8.8	24.3
Bulgaria	41.4	54.6	43.2	31.9	42.3	44.6	48.3	35.8	8.5	29.7
Croatia	45.7	49.1	42.1	32.7	41.8	30.4	36.6	32.9	10.6	25.2
Czech Rep	27.5	40.5	47.2	23.3	35.4	29.9	30.0	26.1	12.4	23.2
Denmark	27.4	31.7	43.8	34.0	35.1	19.3	29.1	32.2	30.9	29.3
Estonia	47.7	49.5	50.2	32.7	44.8	21.3	36.1	34.7	10.2	24.0
Finland	30.8	41.1	32.1	19.2	29.8	36.4	22.0	34.7	10.2	22.7
Germany (W)	36.1	41.9	44.8	23.0	35.5	36.3	38.4	29.5	10.3	24.6
Germany (E)	58.4	51.4	41.6	16.2	38.4	51.7	41.2	32.1	11.5	28.2
Greece	33.0	59.3	60.3	35.3	47.5	54.0	49.8	43.2	14.7	36.7
Hungary	31.7	60.3	54.4	26.3	43.9	28.1	40.9	43.3	12.8	29.6
Italy	23.9	52.3	45.1	31.4	39.7	40.5	27.4	26.5	15.0	24.0
Latvia	47.6	61.2	59.3	40.2	52.9	34.5	28.0	17.0	9.0	21.3
Lithuania	45.4	54.0	66.4	34.0	50.3	29.4	30.8	27.1	4.0	20.4
Luxembourg	31.2	35.9	29.8	21.8	29.5	34.1	28.4	23.4	16.0	23.8
Poland	27.0	46.5	42.3	43.1	40.5	26.9	37.4	38.0	19.6	30.0
Romania	34.6	52.5	50.1	30.6	42.6	28.5	30.2	23.4	5.6	20.3
Slovakia	29.3	37.4	39.7	20.6	32.6	19.8	27.7	24.4	5.5	19.0
Slovenia	33.3	37.7	21.5	12.3	25.3	29.6	22.8	32.4	8.7	21.3
Blended, mean	36.2	47.7	45.1	28.1	39.3	33.4	33.7	30.7	11.8	25.1
Between types, P	***	*	NS	NS	***	NS	NS	NS	(*)	NS

Table 13 (continued/3)

	Men					Women				
	15-24	25-39	40-54	55+	Total	15-24	25-39	40-54	55+	Total
Ex prevalence										
Great Britain	10.7	8.9	22.5	47.6	24.6	8.7	18.4	17.3	35.9	22.8
Ireland	5.1	14.9	22.9	35.7	19.8	3.3	17.8	19.9	20.8	16.2
Malta †	20.8	8.1	24.4	40.9	24.2	10.4	16.0	9.6	9.9	11.4
N Ireland †	4.1	20.1	23.1	46.2	25.5	2.1	19.3	23.5	24.4	19.4
Virginia, mean	10.1	13.0	23.2	42.6	23.5	6.1	17.9	17.6	22.7	17.4
Austria	15.9	18.9	28.9	40.2	27.6	7.1	20.5	20.7	17.8	17.7
Bulgaria	11.2	13.2	25.1	32.3	21.9	6.9	11.0	10.8	5.6	8.3
Croatia	3.4	13.4	24.5	33.7	20.8	6.3	12.7	16.7	10.7	12.0
Czech Rep	8.2	15.0	23.9	44.2	23.7	10.0	18.0	19.2	21.3	18.0
Denmark	11.2	17.5	23.9	42.0	26.4	14.8	28.0	33.5	32.7	29.4
Estonia	10.7	17.3	27.3	43.4	25.3	16.2	10.0	12.3	11.7	12.2
Finland	12.9	20.0	23.2	34.3	24.4	9.8	19.2	20.6	18.5	17.9
Germany (W)	11.6	13.2	30.2	49.3	30.0	9.8	15.9	28.7	18.2	19.4
Germany (E)	6.2	17.1	24.1	50.3	28.1	22.9	17.6	15.9	16.2	17.3
Greece	4.6	16.0	20.6	39.9	22.3	4.1	11.4	16.1	12.1	11.6
Hungary	5.7	12.6	21.1	40.8	21.3	10.7	8.9	10.6	10.2	10.1
Italy	8.3	9.0	20.2	34.7	20.0	1.5	11.6	13.6	17.6	13.1
Latvia	12.1	13.4	12.7	31.9	16.9	8.7	14.6	11.5	5.1	10.0
Lithuania	9.8	16.5	16.6	37.2	20.4	13.0	12.9	16.8	5.6	11.3
Luxembourg	6.3	8.6	31.3	33.1	21.7	5.9	10.4	16.4	14.0	12.5
Poland	5.0	9.2	31.5	34.3	20.6	10.8	16.1	21.3	21.6	18.2
Romania	9.9	10.9	23.4	28.4	18.3	1.7	5.9	8.8	2.9	4.9
Slovakia	3.5	19.6	20.5	35.5	19.8	1.5	13.0	17.3	10.5	11.1
Slovenia	5.9	15.5	40.8	48.6	30.4	10.0	21.8	16.0	14.4	16.0
Blended, mean	8.6	14.6	24.7	38.6	23.2	9.0	14.7	17.2	14.0	14.3
Between types, P	NS	NS	NS	NS	NS	NS	*	NS	NS	NS

Table 13 (continued/4)

	Men					Women				
	15-24	25-39	40-54	55+	Total	15-24	25-39	40-54	55+	Total
Quit ratio										
Great Britain	28.5	16.5	37.5	66.5	42.2	17.1	33.7	31.9	63.3	41.6
Ireland †	19.4	29.6	39.1	65.2	41.1	9.1	36.3	36.9	48.8	35.2
Malta †	50.0	20.2	43.7	58.5	45.6	20.6	34.6	35.4	48.7	34.2
N Ireland †	16.4	37.2	32.6	67.2	44.5	3.1	32.6	36.3	53.9	34.0
Virginia, mean	28.6	25.9	38.2	64.4	43.3	12.5	34.3	35.1	53.7	36.2
Austria †	30.9	27.3	39.8	61.6	41.6	15.0	37.1	43.3	66.8	42.1
Bulgaria	21.3	19.5	36.7	50.3	34.2	13.4	18.5	23.2	39.5	21.8
Croatia	6.9	21.5	36.8	50.7	33.2	17.3	25.8	33.7	50.2	32.4
Czech Rep	22.9	27.0	33.6	65.5	40.1	25.1	37.5	42.4	63.2	43.7
Denmark	29.1	35.7	35.3	55.3	42.9	43.4	49.0	51.0	51.4	50.1
Estonia	18.4	25.8	35.3	57.0	36.1	43.2	21.7	26.2	53.3	33.6
Finland	29.5	32.8	42.0	64.1	45.1	21.2	46.6	37.2	64.5	44.1
Germany (W)	24.3	23.9	40.2	68.1	45.8	21.3	29.2	49.3	63.9	44.1
Germany (E)	9.6	25.0	36.7	75.6	42.3	30.7	30.0	33.1	58.5	38.0
Greece	12.3	21.3	25.4	53.1	32.0	7.1	18.6	27.1	45.3	24.0
Hungary	15.2	17.2	27.9	60.8	32.6	27.6	17.8	19.6	44.4	25.4
Italy †	25.9	14.7	30.9	52.5	33.4	3.6	29.8	33.9	54.0	35.3
Latvia	20.3	18.0	17.7	44.3	24.2	20.0	34.4	40.4	36.5	31.9
Lithuania	17.7	23.4	20.0	52.2	28.9	30.6	29.5	38.3	58.7	35.6
Luxembourg †	16.9	19.4	51.2	60.3	42.5	14.7	26.9	41.2	46.7	34.5
Poland	15.7	16.5	42.6	44.3	33.7	28.7	30.1	36.0	52.4	37.8
Romania †	22.2	17.2	31.8	48.1	30.1	5.6	16.3	27.3	34.1	19.4
Slovakia †	10.7	34.4	34.1	63.2	37.7	7.0	31.9	41.4	65.5	37.0
Slovenia	15.1	29.2	65.5	79.8	54.6	25.2	48.9	33.0	62.4	42.9
Blended, mean	19.2	23.7	36.0	58.3	37.4	21.1	30.5	35.7	53.2	35.5
Between types, P	NS	NS	NS	(*)	**	NS	NS	NS	NS	NS

¹ Regular MC smokers as % of all MC smokers

† Based on less than 20 respondents for at least one sex × age group.

See text §4.2.1 for definitions of current and ex smokers

Table 14 Unsuccessful quit attempts in last year among current smokers – EB66, 2006

	Men					Women				
	15-24	25-39	40-54	55+	Total	15-24	25-39	40-54	55+	Total
Any quit attempt										
Great Britain †	40.0	58.1	40.3	35.4	45.7	57.2	43.1	50.0	34.6	45.8
Ireland †	56.3	40.9	41.0	30.3	41.7	40.4	31.9	47.2	38.3	39.3
Malta †	50.0	46.2	37.5	41.6	42.8	30.1	28.2	25.8	18.2	26.7
N Ireland †	20.4	48.2	53.6	23.0	41.8	40.5	43.6	26.3	38.8	37.0
Virginia, mean	41.7	48.3	43.1	32.6	43.0	42.1	36.7	37.3	32.5	37.2
Austria †	8.7	16.8	14.0	10.3	13.6	25.7	23.9	23.7	24.8	24.4
Bulgaria	42.1	45.4	34.6	40.7	40.9	45.8	37.5	45.1	56.1	43.5
Croatia	33.4	21.6	32.6	18.6	26.1	33.5	24.4	19.6	37.2	26.4
Czech Rep †	42.6	16.6	25.1	27.8	25.5	23.7	48.9	24.6	23.4	32.0
Denmark †	65.4	30.0	20.7	27.6	30.1	51.2	40.7	28.7	48.2	41.2
Estonia †	42.4	24.1	22.1	25.7	27.9	39.1	27.9	27.6	19.2	28.1
Finland †	42.9	35.2	22.7	38.9	33.5	35.6	28.3	25.9	42.9	31.6
Germany (W)	27.8	29.0	13.8	17.0	20.8	47.6	34.9	26.8	32.5	34.3
Germany (E) †	24.4	22.0	23.8	34.4	24.8	51.0	28.3	16.7	30.4	30.9
Greece	32.6	27.2	28.9	42.0	31.7	33.0	24.4	30.3	29.3	28.7
Hungary †	54.1	39.0	46.2	29.8	42.0	48.0	29.1	51.2	50.8	43.6
Italy †	50.2	20.9	15.5	23.7	22.6	35.6	17.4	24.8	14.4	22.3
Latvia †	52.9	27.6	19.7	19.5	29.4	47.1	41.4	20.9	27.3	37.6
Lithuania †	35.2	22.9	14.7	21.8	22.2	38.7	27.8	34.2	46.2	33.6
Luxembourg †	36.8	56.3	10.6	44.1	37.3	57.2	38.0	21.8	37.9	37.6
Poland	41.1	38.8	26.7	27.1	32.6	55.3	30.8	29.5	36.1	35.4
Romania †	25.6	26.3	36.0	37.1	31.0	36.8	33.6	31.0	19.2	32.4
Slovakia †	47.2	34.5	44.9	28.4	39.7	57.9	37.8	35.0	47.2	41.8
Slovenia †	9.0	30.5	16.3	20.8	21.2	29.6	29.4	22.1	37.0	27.7
Blended, mean	37.6	29.7	24.7	28.2	29.1	41.7	31.8	28.4	34.7	33.3
Between types, P	NS	**	**	NS	***	NS	NS	NS	NS	NS

Table 14 (continued)

	Men					Women				
	15-24	25-39	40-54	55+	Total	15-24	25-39	40-54	55+	Total
More than 5 quit attempts										
Great Britain †	11.2	6.4	5.2	6.1	6.6	0.0	0.0	1.9	3.3	1.3
Ireland †	0.0	0.0	5.4	8.0	3.0	12.2	2.0	5.7	9.2	6.7
Malta †	0.0	0.0	0.0	7.2	2.0	0.0	7.9	0.0	0.0	2.6
N Ireland †	0.0	4.3	0.0	5.8	2.4	0.0	6.4	0.0	0.0	1.5
Virginia, mean	2.8	2.7	2.6	6.8	3.5	3.1	4.1	1.9	3.1	3.0
Austria †	0.0	4.8	0.0	0.0	1.7	0.0	5.0	0.0	0.0	1.8
Bulgaria	0.0	1.7	1.4	1.5	1.3	0.0	3.9	6.6	4.4	3.9
Croatia	3.7	2.0	2.4	2.6	2.5	0.0	2.0	3.9	0.0	2.0
Czech Rep †	13.3	0.0	5.9	0.0	4.1	4.5	4.4	3.9	5.0	4.4
Denmark †	4.7	0.0	3.2	0.0	1.6	9.3	5.4	7.9	3.9	5.8
Estonia †	3.3	0.0	4.9	0.0	2.1	0.0	2.5	0.0	3.6	1.4
Finland †	0.0	2.8	0.0	2.6	1.4	0.0	3.8	2.4	15.7	4.5
Germany (W)	0.0	11.2	0.0	3.5	4.0	3.8	0.0	3.3	0.0	1.7
Germany (E) †	0.0	10.6	7.4	0.0	5.6	0.0	4.7	0.0	0.0	1.3
Greece	0.0	3.8	3.6	1.1	2.7	3.2	1.3	0.0	3.3	1.7
Hungary †	6.4	1.9	4.0	0.0	2.9	5.9	6.8	10.2	4.8	7.6
Italy †	0.0	6.4	1.7	7.0	4.7	15.7	3.5	0.0	0.0	4.3
Latvia †	4.0	2.8	2.0	2.8	2.8	0.0	6.4	0.0	0.0	2.2
Lithuania †	0.0	0.0	0.0	0.0	0.0	0.0	2.5	8.5	0.0	3.6
Luxembourg †	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	1.2
Poland	4.5	0.0	2.4	1.8	1.8	9.9	7.8	1.9	9.0	6.4
Romania †	4.7	4.9	8.3	7.5	6.3	5.7	3.8	9.0	0.0	5.3
Slovakia †	6.8	4.5	10.6	4.0	6.9	6.5	0.0	0.0	0.0	1.3
Slovenia †	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.8
Blended, mean	2.7	3.0	3.0	1.8	2.8	3.4	3.7	3.0	2.6	3.2
Between types, P	NS	NS	NS	***	NS	NS	NS	NS	NS	NS

Table 14 (continued/2)

	Men					Women				
	15-24	25-39	40-54	55+	Total	15-24	25-39	40-54	55+	Total
Latest attempt lasted less than 1 week^{1,‡}										
Great Britain	43.3	50.5	25.5	43.4	42.1	47.1	35.8	19.5	60.1	37.6
Ireland	56.9	51.9	23.2	56.8	44.7	39.5	31.3	67.1	38.1	46.4
Malta	100.0	30.9	0.0	57.5	41.1	86.6	91.5	100.0	40.5	85.8
N Ireland	100.0	73.7	22.8	50.0	46.6	67.4	51.4	32.7	40.1	50.3
Virginia, mean	75.1	51.7	17.9	51.9	43.6	60.1	52.5	54.8	44.7	55.0
Austria	0.0	35.6	42.2	56.7	37.6	85.3	65.8	60.0	56.1	67.7
Bulgaria	55.9	52.1	43.0	38.8	47.6	50.7	44.9	58.5	51.1	51.1
Croatia	54.9	45.3	21.1	62.0	41.9	50.0	16.9	20.1	10.9	23.9
Czech Rep	30.8	47.3	43.1	72.1	46.3	52.8	61.3	33.4	24.8	49.0
Denmark	44.5	51.1	43.2	47.6	46.6	83.9	35.9	20.0	22.5	31.9
Estonia	69.8	34.0	44.2	35.3	48.5	20.8	32.2	46.7	80.3	39.9
Finland	49.7	25.0	37.3	40.9	36.7	23.5	58.4	52.9	54.5	46.6
Germany (W)	37.5	56.9	58.4	24.7	47.9	77.6	57.2	65.0	57.0	64.2
Germany (E)	14.4	0.0	50.4	14.0	21.2	63.1	49.3	33.9	14.5	47.0
Greece	72.0	32.7	43.8	29.1	39.7	40.7	16.5	48.6	67.7	39.6
Hungary	22.6	49.5	46.0	53.2	43.8	24.9	52.7	43.9	61.0	45.8
Italy	65.2	75.3	80.6	41.2	65.3	74.3	27.2	56.1	78.1	58.6
Latvia	55.3	47.1	68.7	70.5	56.9	46.5	46.9	83.5	27.3	49.1
Lithuania	50.8	70.2	72.2	33.7	59.0	53.8	27.0	42.1	62.2	42.3
Luxembourg	14.4	52.6	0.0	51.0	41.9	26.0	41.9	38.8	17.3	31.2
Poland	55.4	35.1	64.1	47.5	48.1	46.2	43.0	33.6	55.2	43.9
Romania	21.5	44.0	62.9	42.5	47.0	48.6	44.4	68.6	57.8	52.6
Slovakia	71.8	77.7	50.5	44.6	62.7	49.6	60.4	56.6	69.7	57.2
Slovenia	0.0	45.9	32.0	21.7	36.0	71.4	35.7	49.7	44.0	49.3
Blended, mean	41.4	46.2	47.6	43.5	46.0	52.1	43.0	48.0	48.0	46.9
Between types, P	NS	NS	**	NS	NS	NS	NS	NS	NS	NS

Table 14 (continued/3)

	Men					Women				
	15-24	25-39	40-54	55+	Total	15-24	25-39	40-54	55+	Total
Latest attempt lasted over 2 months^{1,†}										
Great Britain	0.0	18.2	40.7	23.6	22.8	15.5	52.3	34.6	20.9	32.8
Ireland	0.0	24.5	45.0	19.8	25.0	0.0	12.3	3.8	55.1	14.7
Malta	0.0	14.2	29.0	17.2	16.7	0.0	8.5	0.0	0.0	2.9
N Ireland	0.0	26.3	0.0	0.0	8.4	17.0	31.6	55.0	48.1	35.1
Virginia, mean	0.0	20.8	28.7	15.2	18.2	8.1	26.2	23.4	31.0	21.4
Austria	100.0	6.5	9.9	0.0	14.9	0.0	23.8	0.0	0.0	8.4
Bulgaria	9.2	16.5	25.5	35.6	21.8	0.0	20.2	21.6	31.7	17.6
Croatia	0.0	18.3	28.8	24.2	18.5	12.5	33.3	40.3	67.3	37.7
Czech Rep	26.0	23.7	35.5	6.9	25.4	0.0	7.5	25.5	48.6	15.6
Denmark	21.0	34.8	23.9	28.1	27.0	16.1	33.0	36.0	29.1	30.0
Estonia	7.4	33.0	0.0	0.0	11.3	21.0	33.1	22.7	0.0	23.7
Finland	0.0	41.6	25.7	32.6	27.3	63.6	0.0	9.4	9.6	21.8
Germany (W)	25.2	31.3	7.2	31.3	24.5	7.9	19.5	2.9	10.7	11.2
Germany (E)	26.8	100.0	19.7	40.3	47.0	0.0	29.0	20.3	46.1	18.2
Greece	14.3	42.2	37.6	39.8	36.7	7.6	36.3	24.8	21.0	23.1
Hungary	10.2	25.3	31.7	28.0	25.3	49.8	6.1	36.3	24.5	29.9
Italy	0.0	0.0	19.4	31.8	12.2	14.7	39.4	27.6	0.0	21.9
Latvia	22.2	19.5	0.0	14.6	16.2	11.9	26.5	0.0	25.1	17.3
Lithuania	29.7	10.0	0.0	38.7	18.3	46.2	36.2	24.0	37.8	35.2
Luxembourg	29.3	34.6	66.6	33.9	36.2	17.0	40.1	41.1	25.2	30.0
Poland	22.4	15.2	9.0	40.1	20.5	17.9	32.5	47.2	18.9	29.9
Romania	0.0	14.6	14.4	15.8	12.9	16.6	38.5	10.9	42.2	25.4
Slovakia	11.8	9.5	24.8	9.6	15.9	26.1	24.3	22.2	12.5	23.1
Slovenia	48.9	30.7	0.0	22.9	25.6	14.2	31.6	20.2	33.9	24.7
Blended, mean	21.3	26.7	20.0	25.0	23.0	18.1	26.9	22.8	25.5	23.4
Between types, P	***	NS	NS	NS	NS	NS	NS	NS	NS	NS

¹ Among those with at least 1 quit attempt[†] Based on less than 20 respondents for at least one sex × age group.[‡] Based on less than 20 respondents for at least one sex × age group in every country.

Table 15 Smoking prevalence and quit ratios – EB72, 2009

	Manufactured cigarettes		Any product		
	Current prevalence ¹	Regularity ^{1,2}	Current prevalence	Ex prevalence	Quit ratio ¹
Ireland	30.1	90.7	31	20	39.2
Malta	25.0	85.4	26	15	36.6
UK	23.5	79.8	28	25	47.2
Virginia, mean	26.2	85.3	28.3	20.0	41.0
Austria	33.3	92.9	34	23	40.4
Bulgaria	39.0	96.0	39	15	27.8
Croatia	31.7	94.8	33	18	35.3
Czech Rep	23.9	91.3	26	19	42.2
Denmark	26.1	86.7	29	31	51.7
Estonia	31.0	88.7	32	21	39.6
Finland	19.5	75.3	21	27	56.3
Germany (W)	21.1	77.3	24	27	52.9
Germany (E)	27.3	78.7	29	22	43.1
Greece	40.7	93.8	42	14	25.0
Hungary	35.7	85.1	38	15	28.3
Italy	25.5	93.9	26	16	38.1
Latvia	35.3	91.8	36	17	32.1
Lithuania	29.4	89.8	30	18	37.5
Luxembourg	22.5	82.2	25	22	46.8
Macedonia	36.6	92.9	37	11	22.9
Poland	32.3	87.8	33	22	40.0
Romania	30.0	95.0	30	12	28.6
Slovakia	22.4	84.9	26	21	44.7
Slovenia	25.5	90.8	26	24	48.0
Blended, mean	29.4	88.5	30.8	19.8	39.1
Between types, P	NS	NS	NS	NS	NS

¹ Derived from data originally given as whole numbers

² Regular MC smokers as % of all MC smokers

Results refer to both sexes and all ages (15+) combined.

Table 16 Unsuccessful quit attempts in last year among current smokers – EB72, 2009

	Among current smokers		Most recent quit attempt ¹	
	Any quit attempt	More than 5 quit attempts	Lasted < 1 week	Lasted > 2 months
Ireland	35	3	44	23
Malta	33	2	46	29
UK	32	2	56	16
Virginia, mean	33.3	2.3	48.7	22.7
Austria	21	1	54	9
Bulgaria	28	4	44	29
Croatia	27	3	54	20
Czech Rep	22	3	57	5
Denmark	29	1	52	19
Estonia	43	4	53	21
Finland	38	2	43	31
Germany (W)	25	4	52	21
Germany (E)	27	3	50	22
Greece	17	1	54	15
Hungary	28	1	59	14
Italy	23	1	65	12
Latvia	43	5	52	13
Lithuania	47	3	50	23
Luxembourg	27	2	52	21
Macedonia	36	5	53	26
Poland	40	5	44	22
Romania	38	5	57	14
Slovakia	29	5	75	6
Slovenia	29	2	55	21
Blended, mean	30.9	3.0	53.8	18.2
Between types, P	NS	NS	NS	NS

¹ Among those with at least 1 quit attempt
Results refer to both sexes and all ages (15+) combined.

Table 17 Smoking prevalence – HBSC

	Age 11			Age 13			Age 15		
	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06
Ever prevalence – Boys									
Canada	20	12.1	7	44	25.7	19	62	48.6	34
England	20	21.6	6	46	45.9	22	60	63.5	40
Ireland	26	16.3	10	54	30.9	29	67	57.0	47
Malta		8.7	10		25.9	24		37.6	42
Northern Ireland	21			45			58		
Scotland	18	13.3	9	46	37.7	25	59	50.6	44
Wales	28	12.0	8	47	35.5	27	61	51.3	46
Virginia, mean	22.2	14.0	8.3	47.0	33.6	24.3	61.2	51.4	42.2
Austria	26	15.6	11	48	37.2	36	69	73.1	63
Bulgaria			14			35			61
Croatia		20.4	21		38.9	41		58.0	59
Czech Rep	40	27.3	31	61	62.6	56	73	77.9	71
Denmark	22	15.0	8	41	38.7	27	64	54.7	51
Estonia	47	37.0	37	68	68.9	67	81	80.5	79
Finland	29	17.6	14	60	46.5	35	73	65.2	61
Germany ¹	30	22.9	12	56	52.7	30	68	70.1	54
Greece	5	5.2	4	23	18.5	16	48	42.6	43
Hungary	28	25.1	18	57	49.6	45	74	72.8	64
Iceland			5						39
Israel	21	20.3	16	36	34.8	28	54	47.3	43
Italy		12.1	9		37.1	25		55.2	51
Latvia	41	42.2	44	74	73.1	66	87	82.6	82
Lithuania	46	42.0	31	70	73.9	64	83	88.7	83
Luxembourg			13			34			57
Macedonia ²		4.1	3		8.6	11		37.4	36
Poland	26	27.2	16	54	52.7	34	70	69.8	63
Romania			14			29			54
Slovakia	50		20	70		46	80		60
Slovenia		17.1	10		41.1	34		66.1	55
Switzerland	25	19.2	17	49	40.4	35	70	64.3	61
USA	22	8.3	7	42	27.1	16	61	54.6	32
Blended, mean	30.5	21.0	16.3	53.9	44.6	35.9	70.3	64.5	57.5
Between types P	*	*	**	(*)	*	**	**	*	***

Table 17 (continued)

	Age 11			Age 13			Age 15		
	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06
Ever prevalence – Girls									
Canada	18	7.8	6	43	31.0	23	66	50.4	39
England	16	19.9	5	52	53.3	27	70	70.1	53
Ireland	20	9.9	7	51	35.2	24	67	58.0	53
Malta		5.1	4		32.9	23		40.1	49
Northern Ireland	16			48			67		
Scotland	19	9.5	6	52	41.7	28	68	61.6	57
Wales	22	13.8	8	59	47.5	41	73	64.5	59
Virginia, mean	18.5	11.0	6.0	50.8	40.3	27.7	68.5	57.5	51.7
Austria	14	9.3	8	48	37.2	38	75	77.7	68
Bulgaria			10			40			72
Croatia		9.1	11		34.5	37		63.2	63
Czech Rep	22	15.5	19	49	51.8	51	69	74.3	67
Denmark	14	9.2	5	42	31.8	24	68	60.5	52
Estonia	12	15.1	18	36	46.2	50	56	65.0	69
Finland	16	7.9	6	54	45.6	32	78	70.8	58
Germany ¹	15	14.1	8	51	53.5	33	71	74.2	60
Greece	3	2.4	2	20	14.9	15	45	38.8	44
Hungary	17	12.3	12	52	41.0	42	73	67.7	66
Iceland			2			13			37
Israel	10	6.3	5	29	23.7	11	40	36.5	30
Italy		6.1	4		30.8	27		58.3	53
Latvia	15	16.9	24	52	49.7	58	68	70.9	73
Lithuania	19	24.9	15	41	50.3	43	55	72.7	72
Luxembourg			8			29			60
Macedonia ²		2.3	1		7.3	8		34.3	36
Poland	12	12.1	7	38	39.5	28	60	61.4	55
Romania			4			21			45
Slovakia	27		9	47		34	67		52
Slovenia		10.1	8		35.5	29		63.7	53
Switzerland	13	10.7	9	41	36.1	26	65	64.6	56
USA	16	6.1	6	42	23.9	18	60	43.2	33
Blended, mean	15.0	10.6	8.7	42.8	36.3	30.7	63.3	61.0	55.4
Between types P	(*)	NS	*	*	NS	NS	(*)	NS	NS

Table 17 (continued/2)

	Age 11			Age 13			Age 15		
	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06
Current weekly prevalence – Boys³									
Canada	2	1.7	1	12	5.4	4	21	15.5	7
England	3	2.6	2	11	10.1	6	25	21.1	13
Ireland	2	2.6	2	14	4.9	6	25	19.5	19
Malta		2.0	2		8.9	9		16.9	19
Northern Ireland	3			12			20		
Scotland	2	1.4	2	9	6.1	4	22	15.9	14
Wales	2	2.1	1	8	8.1	6	22	15.5	12
Virginia, mean	2.3	2.1	1.7	11.0	7.3	5.8	22.5	17.4	14.0
Austria	2	1.4	1	10	6.4	8	30	26.1	24
Bulgaria			2			7			28
Croatia		0.4	1		5.5	5		23.2	24
Czech Rep	2	3.0	2	10	13.7	8	22	28.7	20
Denmark	1	0.4	<0.5	6	6.2	5	20	16.7	15
Estonia	1	3.7	2	7	12.8	11	24	30.4	27
Finland	1	0.7	1	10	10.1	5	25	28.3	23
Germany ¹	2	3.3	1	14	13.6	5	28	32.2	17
Greece	1	0.8		5	4.9		18	13.5	
Hungary	2	4.1	2	12	9.9	5	36	28.2	22
Iceland			<0.5			3			14
Israel	7	5.4	4	12	9.9	6	24	16.9	12
Italy		2.6	1		8.5	6		21.8	20
Latvia	4	1.8	3	15	16.6	11	37	28.9	30
Lithuania	2	2.3	1	10	10.7	10	24	34.9	26
Luxembourg			2			6			17
Macedonia ²		1.9	<0.5		2.9	2		14.6	14
Poland	3	3.8	2	8	11.8	5	27	26.3	19
Romania			2			5			20
Slovakia	2		2	7		7	28		18
Slovenia		2.2	1		6.2	3		29.5	20
Switzerland	1	1.5	<0.5	6	7.6	4	25	25.4	15
USA	3	1.2	3	8	7.4	3	20	17.5	7
Blended, mean	2.3	2.3		9.3	9.2	5.9	25.9	24.6	19.6
Between types P	NS	NS	(³)	NS	NS	NS	(*)	***	*

Table 17 (continued/3)

	Age 11			Age 13			Age 15		
	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06
Current weekly prevalence – Girls³									
Canada	2	1.1	1	13	7.6	4	26	13.5	10
England	1	2.5	1	15	14.3	8	33	27.9	18
Ireland	2	1.6	1	12	8.5	6	25	20.5	20
Malta		0.9	1		13.6	11		17.4	24
Northern Ireland	2			15			28		
Scotland	3	1.1	1	13	10.7	8	28	23.2	23
Wales	2	1.6	1	18	14.8	12	29	26.8	23
Virginia, mean	2.0	1.5	1.0	14.3	11.6	8.2	28.2	21.6	19.7
Austria	1	0.6	<0.5	8	7.4	7	36	37.1	30
Bulgaria			1			11			36
Croatia		0.4	<0.5		3.9	5		24.9	28
Czech Rep	0.2	1.0	1	7	8.6	9	18	30.6	23
Denmark	1	0.2	<0.5	8	4.5	3	28	21.0	15
Estonia	1	1.5	1	2	8.0	7	12	18.2	19
Finland	1	0.1	<0.5	14	12.4	7	29	32.2	21
Germany ¹	1	1.1	1	13	14.6	7	33	33.7	22
Greece	1	0.2		5	3.0		19	14.1	
Hungary	1	1.3	1	6	6.1	6	28	25.8	21
Iceland			<0.5			2			13
Israel	3	1.2	1	6	5.4	1	13	11.6	7
Italy		0.7	<0.5		6.7	5		24.9	20
Latvia	0.3	0.5	1	7	6.0	10	19	21.1	23
Lithuania	0.3	0.9	1	2	6.6	5	10	17.9	18
Luxembourg			1			6			21
Macedonia ²		0.6	<0.5		1.1	2		12.7	14
Poland	1	0.6	1	4	7.4	5	20	17.0	14
Romania			0			2			12
Slovakia	0.4		1	3		4	18		15
Slovenia		0.5	<0.5		4.1	3		29.7	16
Switzerland	1	0.8	1	8	6.7	3	25	24.1	15
USA	2	1.0	1	9	4.5	4	21	12.3	9
Blended, mean	1.0	0.7		6.8	6.5	5.2	21.9	22.7	18.7
Between types P	*	*	(3)	***	**	(*)	*	NS	NS

Table 17 (continued/4)

	Age 11			Age 13			Age 15		
	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06
Current daily prevalence – Boys									
Canada	1	0.8	1	8	3.8	2	17	12.8	4
England	1	1.5	1	7	6.9	3	21	15.8	9
Ireland	1	0.8	1	8	2.5	3	19	14.6	14
Malta		0.8	1		4.1	4		8.6	10
Northern Ireland	1			7			16		
Scotland	1	0.8	1	5	2.7	3	19	13.0	12
Wales	1	0.9	1	6	6.0	5	18	12.1	8
Virginia, mean	1.0	0.9	1.0	6.8	4.3	3.3	18.3	12.8	9.5
Austria	0.3	0.9	0	5	3.3	4	20	19.5	17
Bulgaria			0			4			23
Croatia		0.1	0		3.2	3		17.1	19
Czech Rep	1	1.3	1	6	6.2	4	16	20.2	15
Denmark	0.4	0.0	0	3	3.0	3	15	13.7	10
Estonia	0	1.5	0	4	7.6	6	17	23.3	21
Finland	0.2	0.3	0	7	6.6	3	19	22.1	19
Germany ¹	1	1.5	0	9	10.2	3	22	26.3	13
Greece	0.1	0.8	0	3	2.7	1	13	9.2	14
Hungary	1	2.4	1	6	5.5	4	29	20.7	18
Iceland			0			2			11
Israel	4	2.1	3	6	5.1	3	17	11.2	6
Italy		0.6	0		3.4	2		16.1	14
Latvia	2	0.5	1	8	8.8	7	27	21.8	23
Lithuania	1	1.2	1	6	6.2	7	15	26.6	21
Luxembourg			1			4			13
Macedonia ²		1.0	0		1.6	1		11.2	10
Poland	1	1.2	1	3	7.5	4	22	21.4	15
Romania			1			3			16
Slovakia	1		1	4		4	20		15
Slovenia		1.1	0		3.5	1		22.5	14
Switzerland	0.5	1.0	0	3	5.3	2	17	17.6	11
USA	2	0.8	3	5	3.5	2	13	12.0	3
Blended, mean	1.0	1.0	0.6	5.2	5.2	3.3	18.8	18.5	14.8
Between types P	NS	NS	*	*	NS	NS	NS	**	*

Table 17 (continued/5)

	Age 11			Age 13			Age 15		
	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06
Current daily prevalence – Girls									
Canada	1	0.3	0	8	4.5	2	21	11.0	7
England	1	0.9	1	8	8.9	5	24	19.6	13
Ireland	0.4	0.6	0	6	5.7	3	16	16.5	15
Malta		0.0	1		5.8	6		8.4	14
Northern Ireland	1			10			24		
Scotland	2	0.4	0	8	5.8	5	24	19.2	18
Wales	1	0.9	1	12	11.9	9	23	21.5	18
Virginia, mean	1.1	0.5	0.5	8.7	7.1	5.0	22.0	16.0	14.2
Austria	0.1	0.4	0	3	2.4	4	26	24.8	22
Bulgaria			1			6			29
Croatia		0.0	0		1.3	2		16.8	21
Czech Rep	0.2	0.3	0	3	4.1	5	11	22.9	18
Denmark	0.1	0.2	0	4	2.8	2	21	15.8	10
Estonia	1	0.3	0	1	3.9	4	8	11.6	12
Finland	0.4	0.1	0	8	6.1	5	20	23.3	15
Germany ¹	0.1	0.3	0	9	10.1	4	25	28.7	16
Greece	0.5	0.0	0	2	1.4	1	14	10.6	11
Hungary	0	0.6	0	3	2.8	3	20	18.0	17
Iceland			0			1			10
Israel	2	0.9	0	3	2.2	1	7	8.4	5
Italy		0.0	0		2.6	2		16.1	14
Latvia	0.1	0.3	1	3	2.5	6	12	14.4	15
Lithuania	0.3	0.5	0	1	3.6	3	6	11.2	12
Luxembourg			0			5			16
Macedonia ²		0.5	0		0.7	0		8.6	9
Poland	0.4	0.1	0	2	4.0	2	14	11.6	10
Romania			0			1			9
Slovakia	0.3		0	2		2	10		10
Slovenia		0.5	0		1.8	1		23.2	12
Switzerland	0	0.3	0	4	2.9	1	17	16.6	10
USA	1	0.3	1	3	1.7	2	12	7.7	4
Blended, mean	0.4	0.3	0.1	3.4	3.2	2.7	14.9	16.1	13.3
Between types P	*	NS	NS	***	*	(*)	**	NS	NS

¹ region

² The former Yugoslav Republic of Macedonia

³ For 2005-06, some results were originally shown as “<0.5”, and means and t-tests are omitted.

Number of decimal places is as shown in the original report.

P: t-test for difference between Virginia and blended groups, coded as *** $p < 0.001$, ** $0.001 < p < 0.01$, * $0.01 < p < 0.05$, (*) $0.05 < p < 0.1$, NS $p \geq 0.1$

Definitions refer to smoking cigarette, cigar or pipe, see text §5.1.1,

Table 18 Progression to regular smoking – HBSC

	Age 11			Age 13			Age 15		
	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06
Ever to weekly smoking³ – Boys									
Canada	10.0	14.0	14.3	27.3	21.0	21.1	33.9	31.9	20.6
England	15.0	12.0	33.3	23.9	22.0	27.3	41.7	33.2	32.5
Ireland	7.7	16.0	20.0	25.9	15.9	20.7	37.3	34.2	40.4
Malta		23.0	20.0		34.4	37.5		44.9	45.2
Northern Ireland	14.3			26.7			34.5		
Scotland	11.1	10.5	22.2	19.6	16.2	16.0	37.3	31.4	31.8
Wales	7.1	17.5	12.5	17.0	22.8	22.2	36.1	30.2	26.1
Virginia, mean	10.9	15.5	20.4	23.4	22.0	24.1	36.8	34.3	32.8
Austria	7.7	9.0	9.1	20.8	17.2	22.2	43.5	35.7	38.1
Bulgaria			14.3			20.0			45.9
Croatia		2.0	4.8		14.1	12.2		40.0	40.7
Czech Rep	5.0	11.0	6.5	16.4	21.9	14.3	30.1	36.8	28.2
Denmark	4.5	2.7	⁽³⁾	14.6	16.0	18.5	31.3	30.5	29.4
Estonia	2.1	10.0	5.4	10.3	18.6	16.4	29.6	37.8	34.2
Finland	3.4	4.0	7.1	16.7	21.7	14.3	34.2	43.4	37.7
Germany ¹		14.4	8.3		25.8	16.7		45.9	31.5
Greece	20.0	15.4		21.7	26.5		37.5	31.7	
Hungary	7.1	16.3	11.1	21.1	20.0	11.1	48.6	38.7	34.4
Iceland			⁽³⁾			20.0			35.9
Israel	33.3	26.6	25.0	33.3	28.4	21.4	44.4	35.7	27.9
Italy		21.5	11.1		22.9	24.0		39.5	39.2
Latvia	9.8	4.3	6.8	20.3	22.7	16.7	42.5	35.0	36.6
Lithuania	4.3	5.5	3.2	14.3	14.5	15.6	28.9	39.3	31.3
Luxembourg			15.4			17.6			29.8
Macedonia ²		46.3	⁽³⁾		33.7	18.2		39.0	38.9
Poland	11.5	14.0	12.5	14.8	22.4	14.7	38.6	37.7	30.2
Romania			14.3			17.2			37.0
Slovakia	4.0		10.0	10.0		15.2	35.0		30.0
Slovenia		12.9	10.0		15.1	8.8		44.6	36.4
Switzerland	4.0	7.8	⁽³⁾	12.2	18.8	11.4	35.7	39.5	24.6
USA	13.6	14.5	42.9	19.0	27.3	18.8	32.8	32.1	21.9
Blended, mean	9.3	13.2		17.5	21.5	16.6	36.6	37.9	33.6
Between types P	NS	NS	⁽³⁾	*	NS	(*)	NS	NS	NS

Table 18 (continued)

	Age 11			Age 13			Age 15		
	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06
Ever to weekly smoking³ – Girls									
Canada	11.1	14.1	16.7	30.2	24.5	17.4	39.4	26.8	25.6
England	6.3	12.6	20.0	28.8	26.8	29.6	47.1	39.8	34.0
Ireland	10.0	16.2	14.3	23.5	24.1	25.0	37.3	35.3	37.7
Malta		17.6	25.0		41.3	47.8		43.4	49.0
Northern Ireland	12.5			31.3			41.8		
Scotland	15.8	11.6	16.7	25.0	25.7	28.6	41.2	37.7	40.4
Wales	9.1	11.6	12.5	30.5	31.2	29.3	39.7	41.6	39.0
Virginia, mean	10.8	13.9	17.5	28.2	28.9	29.6	41.1	37.4	37.6
Austria	7.1	6.5	(³)	16.7	19.9	18.4	48.0	47.7	44.1
Bulgaria			10.0			27.5			50.0
Croatia		4.4	(³)		11.3	13.5		39.4	44.4
Czech Rep	0.9	6.5	5.3	14.3	16.6	17.6	26.1	41.2	34.3
Denmark	7.1	2.2	(³)	19.0	14.2	12.5	41.2	34.7	28.8
Estonia	8.3	9.9	5.6	5.6	17.3	14.0	21.4	28.0	27.5
Finland	6.3	1.3	(³)	25.9	27.2	21.9	37.2	45.5	36.2
Germany ¹		7.8	12.5		27.3	21.2		45.4	36.7
Greece	33.3	8.3		25.0	20.1		42.2	36.3	
Hungary	5.9	10.6	8.3	11.5	14.9	14.3	38.4	38.1	31.8
Iceland			(³)			15.4			35.1
Israel	30.0	19.0	20.0	20.7	22.8	9.1	32.5	31.8	23.3
Italy		11.5	(³)		21.8	18.5		42.7	37.7
Latvia	2.0	3.0	4.2	13.5	12.1	17.2	27.9	29.8	31.5
Lithuania	1.6	3.6	6.7	4.9	13.1	11.6	18.2	24.6	25.0
Luxembourg			12.5			20.7			35.0
Macedonia ²		26.1	(³)		15.1	25.0		37.0	38.9
Poland	8.3	5.0	14.3	10.5	18.7	17.9	33.3	27.7	25.5
Romania			0.0			9.5			26.7
Slovakia	1.5		11.1	6.4		11.8	26.9		28.8
Slovenia		5.0	(³)		11.5	10.3		46.6	30.2
Switzerland	7.7	7.5	11.1	19.5	18.6	11.5	38.5	37.3	26.8
USA	12.5	16.4	16.7	21.4	18.8	22.2	35.0	28.5	27.3
Blended, mean	9.5	8.6		15.3	17.8	16.4	33.3	36.8	33.0
Between types P	NS	**	(³)	***	**	*	**	NS	NS

Table 18 (continued/2)

	Age 11			Age 13			Age 15		
	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06
Ever to daily smoking⁴ – Boys									
Canada	5.0	6.6	14.3	18.2	14.8	10.5	27.4	26.3	11.8
England	5.0	6.9	16.7	15.2	15.0	13.6	35.0	24.9	22.5
Ireland	3.8	4.9	10.0	14.8	8.1	10.3	28.4	25.6	29.8
Malta		9.2	10.0		15.8	16.7		22.9	23.8
Northern Ireland	4.8			15.6			27.6		
Scotland	5.6	6.0	11.1	10.9	7.2	12.0	32.2	25.7	27.3
Wales	3.6	7.5	12.5	12.8	16.9	18.5	29.5	23.6	17.4
Virginia, mean	4.6	6.9	12.4	14.6	13.0	13.6	30.0	24.8	22.1
Austria	1.2	5.8	0.0	10.4	8.9	11.1	29.0	26.7	27.0
Bulgaria			0.0			11.4			37.7
Croatia		0.5	0.0		8.2	7.3		29.5	32.2
Czech Rep	2.5	4.8	3.2	9.8	9.9	7.1	21.9	25.9	21.1
Denmark	1.8	0.0	0.0	7.3	7.8	11.1	23.4	25.0	19.6
Estonia	0.0	4.1	0.0	5.9	11.0	9.0	21.0	28.9	26.6
Finland	0.7	1.7	0.0	11.7	14.2	8.6	26.0	33.9	31.1
Germany ¹	3.3	6.6	0.0	16.1	19.4	10.0	32.4	37.5	24.1
Greece	2.0	15.4		13.0	14.6		27.1	21.6	
Hungary	3.6	9.6	5.6	10.5	11.1	8.9	39.2	28.4	28.1
Iceland			0.0			13.3			28.2
Israel	19.0	10.3	18.8	16.7	14.7	10.7	31.5	23.7	14.0
Italy		5.0	0.0		9.2	8.0		29.2	27.5
Latvia	4.9	1.2	2.3	10.8	12.0	10.6	31.0	26.4	28.0
Lithuania	2.2	2.9	3.2	8.6	8.4	10.9	18.1	30.0	25.3
Luxembourg			7.7			11.8			22.8
Macedonia ²		24.4	0.0		18.6	9.1		29.9	27.8
Poland	3.8	4.4	6.3	5.6	14.2	11.8	31.4	30.7	23.8
Romania			7.1			10.3			29.6
Slovakia	2.0		5.0	5.7		8.7	25.0		25.0
Slovenia		6.4	0.0		8.5	2.9		34.0	25.5
Switzerland	2.0	5.2	0.0	6.1	13.1	5.7	24.3	27.4	18.0
USA	9.1	9.6	42.9	11.9	12.9	12.5	21.3	22.0	9.4
Blended, mean	3.9	6.5	4.6	10.0	12.0	9.6	26.8	28.4	25.1
Between types P	NS	NS	**	**	NS	*	NS	**	NS

Table 18 (continued/3)

	Age 11			Age 13			Age 15		
	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06	1997/98	2001/02	2005/06
Ever to daily smoking⁴ – Girls									
Canada	5.6	3.8	0.0	18.6	14.5	8.7	31.8	21.8	17.9
England	6.3	4.5	20.0	15.4	16.7	18.5	34.3	28.0	24.5
Ireland	2.0	6.1	0.0	11.8	16.2	12.5	23.9	28.4	28.3
Malta		0.0	25.0		17.6	26.1		20.9	28.6
Northern Ireland	6.3			20.8			35.8		
Scotland	10.5	4.2	0.0	15.4	13.9	17.9	35.3	31.2	31.6
Wales	4.5	6.5	12.5	20.3	25.1	22.0	31.5	33.3	30.5
Virginia, mean	5.9	4.2	9.6	17.1	17.3	17.6	32.1	27.3	26.9
Austria	0.7	4.3	0.0	6.3	6.5	10.5	34.7	31.9	32.4
Bulgaria			10.0			15.0			40.3
Croatia		0.0	0.0		3.8	5.4		26.6	33.3
Czech Rep	0.9	1.9	0.0	6.1	7.9	9.8	15.9	30.8	26.9
Denmark	0.7	2.2	0.0	9.5	8.8	8.3	30.9	26.1	19.2
Estonia	8.3	2.0	0.0	2.8	8.4	8.0	14.3	17.8	17.4
Finland	2.5	1.3	0.0	14.8	13.4	15.6	25.6	32.9	25.9
Germany ¹	0.7	2.1	0.0	17.6	18.9	12.1	35.2	38.7	26.7
Greece	16.7	0.0		10.0	9.4		31.1	27.3	
Hungary	0.0	4.9	0.0	5.8	6.8	7.1	27.4	26.6	25.8
Iceland			0.0			7.7			27.0
Israel	20.0	14.3	0.0	10.3	9.3	9.1	17.5	23.0	16.7
Italy		0.0	0.0		8.4	7.4		27.6	26.4
Latvia	0.7	1.8	4.2	5.8	5.0	10.3	17.6	20.3	20.5
Lithuania	1.6	2.0	0.0	2.4	7.2	7.0	10.9	15.4	16.7
Luxembourg			0.0			17.2			26.7
Macedonia ²		21.7	0.0		9.6	0.0		25.1	25.0
Poland	3.3	0.8	0.0	5.3	10.1	7.1	23.3	18.9	18.2
Romania			0.0			4.8			20.0
Slovakia	1.1		0.0	4.3		5.9	14.9		19.2
Slovenia		5.0	0.0		5.1	3.4		36.4	22.6
Switzerland	0.0	2.8	0.0	9.8	8.0	3.8	26.2	25.7	17.9
USA	6.3	4.9	16.7	7.1	7.1	11.1	20.0	17.8	12.1
Blended, mean	4.2	4.0	1.4	7.9	8.5	8.5	23.0	26.1	23.5
Between types P	NS	NS	NS	***	**	*	**	NS	NS

¹ region

² The former Yugoslav Republic of Macedonia

³ Derived from the prevalence data (Table 17) : weekly smokers as percentage of ever smokers. Note that for 1997 and 2006 these were given only as whole numbers. For 2005-06, some results for weekly smoking were originally shown as “<0.5” and means and t-tests are omitted

⁴ Derived from the prevalence data (Tables 17) : daily smokers as percentage of ever smokers. Note that for 1997 and 2006, these were given only as whole numbers.

P: t-test for difference between Virginia and blended groups, coded as *** $p < 0.001$, ** $0.001 < p < 0.01$, * $0.01 < p < 0.05$, (*) $0.05 < p < 0.1$, NS $p \geq 0.1$

Definitions refer to smoking cigarette, cigar or pipe, see text §5.1.1,

Table 19 Age at first smoking¹ – HBSC

	2001/02 – mean age of first smoking ²			2005/06 – % of ever smokers who first smoked at age 13 or younger ³
	Ever smokers	Weekly smokers	Daily smokers	
Boys				
Canada	12.2	11.7	11.4	44.1
England	12.6	12.2	11.9	47.5
Ireland	11.5	11.3	11.2	61.7
Malta	13.0	12.7	11.9	52.4
Northern Ireland				
Scotland	12.4	12.4	12.2	56.8
Wales	12.6	11.9	11.8	56.5
Virginia, mean	12.4	12.0	11.7	53.2
Austria	11.7	11.4	11.3	76.2
Bulgaria				57.4
Croatia	12.0	12.0	11.9	59.3
Czech Rep	11.2	10.9	10.8	63.4
Denmark	12.8	12.2	12.1	47.1
Estonia	10.8	10.9	11.0	82.3
Finland	12.1	11.5	11.3	62.3
Germany ⁴	12.3	11.8	11.7	64.8
Greece	13.4	13.0	12.5	37.2
Hungary	12.3	11.9	11.7	54.7
Iceland				38.5
Israel	13.3	13.2	12.9	27.9
Italy	13.2	12.9	12.8	45.1
Latvia	11.5	11.9	11.8	62.2
Lithuania	10.7	10.8	10.7	59.0
Luxembourg				64.9
Macedonia ⁵	12.7	12.5	12.3	41.7
Poland	11.7	11.4	11.4	61.9
Romania				46.3
Slovakia				66.7
Slovenia	12.7	12.8	12.8	54.5
Switzerland	12.2	11.8	11.5	57.4
USA	11.5	10.5	9.9	50.0
Blended, mean	12.1	11.9	11.7	55.7
Between types P	NS	NS	NS	NS

Table 19 (continued)

	2001/02 – mean age of first smoking ²			2005/06 – % of ever smokers who first smoked at age 13 or younger ³
	Ever smokers	Weekly smokers	Daily smokers	
Girls				
Canada	12.8	12.4	12.2	53.8
England	12.7	12.2	12.0	50.9
Ireland	12.4	12.1	11.9	62.3
Malta	13.0	12.8	12.3	57.1
Northern Ireland				
Scotland	12.2	11.7	11.6	59.6
Wales	12.5	12.0	11.8	57.6
Virginia, mean	12.6	12.2	12.0	56.9
Austria	12.0	11.7	11.5	72.1
Bulgaria				52.8
Croatia	13.1	13.1	13.0	44.4
Czech Rep	12.2	12.2	12.1	61.2
Denmark	12.9	12.3	12.0	46.2
Estonia	12.5	12.6	12.8	62.3
Finland	12.8	12.5	12.4	55.2
Germany ⁴	12.5	12.3	12.2	65.0
Greece	14.0	13.7	13.7	29.5
Hungary	13.1	12.8	12.6	50.0
Iceland				32.4
Israel	14.0	13.7	13.5	23.3
Italy	13.8	13.6	13.5	37.7
Latvia	12.7	13.1	12.8	52.1
Lithuania	12.3	12.5	12.4	47.2
Luxembourg				65.0
Macedonia ⁵	13.8	13.5	13.2	30.6
Poland	12.9	12.7	12.6	49.1
Romania				33.3
Slovakia				61.5
Slovenia	13.0	12.9	12.9	47.2
Switzerland	12.8	12.6	12.5	55.4
USA	12.3	11.8	11.6	48.5
Blended, mean	12.9	12.8	12.6	48.8
Between types P	(*)	*	**	*

¹ Smoking defined as “first smoked a cigarettes (more than a puff)” – see §5.1.1. Results refer only to those age 15 at survey.

² Number of decimal places is as shown in the original report.

³ Derived from data originally given only as whole numbers.

⁴ region

⁵ The former Yugoslav Republic of Macedonia

P: t-test for difference between Virginia and blended groups, coded as *** $p < 0.001$, ** $0.001 < p < 0.01$, * $0.01 < p < 0.05$, (*) $0.05 < p < 0.1$, NS $p \geq 0.1$

Table 20 Multivariate analysis. Variants of the “final model” originally presented by Hublet *et al*, and models including Virginia/blended –HBSC

	Model 1 Original Hublet multi-level model (29 countries)			Model 2 Country-level model (29 countries)			Models 3, 4 Country-level model (22 countries)			Model 5 Country-level model (22 countries)		
	OR	p		OR	p		OR	p		OR	p	
Boys, weekly smoking												
Price	0.97	0.050	(*)	0.98	0.072	(*)	0.98	0.010	**	0.97	0.019	*
Bans on advertisements	1.01	0.651	NS	1.01	0.547	NS	1.01	0.463	NS	1.01	0.437	NS
Affluence of country	0.99	0.028	*	0.99	0.044	*	0.99	0.005	**	0.99	0.007	**
Adult smoking	1.02	0.128	NS	1.01	0.262	NS	0.99	0.333	NS	0.99	0.413	NS
Legality of vending machines												
total ban	0.73	0.069	(*)	0.85	0.322	NS	0.88	0.255	NS	0.88	0.259	NS
partial restriction	0.69	0.023	*	0.80	0.169	NS	<u>0.92</u>	<u>0.400</u>	<u>NS</u>	0.90	0.361	NS
>75% Virginia	–			–			<u>0.84</u>	<u>0.209</u>	<u>NS</u>	1.06	0.669	NS
Boys, daily smoking												
Price	†			0.98	0.125	NS	0.98	0.034	*	0.98	0.144	NS
Bans on advertisements				1.02	0.434	NS	1.02	0.247	NS	1.02	0.315	NS
Affluence of country		0.082	(*)	0.99	0.168	NS	0.99	0.067	(*)	0.99	0.065	(*)
Adult smoking		0.020	*	1.03	0.049	*	1.00	0.646	NS	1.00	0.777	NS
Legality of vending machines												
total ban				0.89	0.600	NS	0.95	0.744	NS	0.96	0.782	NS
partial restriction				0.78	0.225	NS	<u>0.92</u>	<u>0.534</u>	<u>NS</u>	0.95	0.746	NS
>75% Virginia	–			–			<u>0.71</u>	<u>0.037</u>	<u>*</u>	0.88	0.516	NS
Girls, weekly smoking												
Public ban	0.98	0.189	NS	0.99	0.372	NS	1.00	0.812	NS	1.00	0.727	NS
Legality of vending machines												
total ban	0.69	0.060	(*)	0.77	0.136	NS	0.75	0.083	(*)	0.75	0.097	(*)
partial restriction	0.82	0.294	NS	0.88	0.451	NS	<u>0.95</u>	<u>0.744</u>	<u>NS</u>	0.93	0.683	NS
>75% Virginia							<u>1.15</u>	<u>0.422</u>	<u>NS</u>	1.08	0.685	NS
Girls, daily smoking												
Public ban	†			0.99	0.360	NS	0.99	0.640	NS	0.99	0.595	NS
Legality of vending machines												
total ban				0.78	0.203	NS	0.75	0.122	NS	0.76	0.139	NS
partial restriction				0.87	0.459	NS	<u>0.96</u>	<u>0.824</u>	<u>NS</u>	0.94	0.772	NS
>75% Virginia	–			–			<u>1.12</u>	<u>0.534</u>	<u>NS</u>	1.07	0.750	NS

Analysis based on 15 year olds, 2005-06 survey wave.

Models 1, 2 and 3 include the same variables as Hublet *et al*'s “final model”. Model 4 (shown in the same columns as Model 3 but below the underline) includes only the dichotomous variable “>75% Virginia”, and Model 5 includes both the “final model” variables and the >75% Virginia variable.

Price is based on a scale of 0-30, bans on advertisements on a scale of 0-13, affluence on GDP in euros per capita, adult smoking on the prevalence (%), public ban on a scale of 0-22, while legality of vending machines is represented by two dichotomous variables. OR = odds ratio.

P coded as *** $p < 0.001$, ** $0.001 < p < 0.01$, * $0.01 < p < 0.05$, (*) $0.05 < p < 0.1$, NS $p \geq 0.1$

† No further details available for these models.

Table 21 Smoking prevalence – ESPAD

	BOYS				GIRLS			
	1995	1999	2003	2007	1995	1999	2003	2007
Ever smoked cigarettes								
Ireland	72	68	62	50	75	77	71	53
Malta	55	55	49	45	56	58	48	47
Isle of Man			51	45			68	60
United Kingdom		60	53	46		70	64	57
England	63				72			
Northern Ireland	60				63			
Scotland	63				70			
Wales	63				72			
Virginia, mean	62.7	61.0	53.8	46.5	68.0	68.3	62.8	54.3
Austria			78	74			82	76
Armenia				47				8
Bulgaria		73	69	63		73	72	67
Croatia	70	70	69	64	67	69	70	69
Czech Republic	78	82	80	76	70	76	79	80
Denmark	67	72	63	62	69	74	64	58
Estonia	85	84	82	80	62	65	71	70
Finland	78	77	70	60	75	73	70	60
Germany ¹			76	69			78	69
Greece	48	59	49	46	47	59	52	45
Hungary	71	72	73	63	67	70	71	66
Iceland	60	54	47	35	62	57	45	38
Italy	63	62	61	59	66	66	67	64
Latvia	84	83	83	85	63	71	74	76
Lithuania	79	85	87	76	53	68	73	66
Macedonia ²		60				55		
Poland	74	75	71	58	59	62	62	54
Romania		67	70	58		51	59	50
Slovak Republic	76	76	77	74	55	68	71	73
Slovenia	60	66	67	61	57	63	66	61
Switzerland			64	60			64	59
Blended, mean	70.9	71.6	70.3	63.5	62.3	65.9	67.9	60.5
Between types P	*	(*)	**	***	NS	NS	NS	NS

Table 21 (continued)

	BOYS				GIRLS			
	1995	1999	2003	2007	1995	1999	2003	2007
Ever smoked 10 cigarettes								
Ireland	48	43	36	22	52	50	41	27
Malta	32	32	26	25	30	35	26	24
Isle of Man			25	24			38	35
United Kingdom		33	27	20		40	35	30
England	36				44			
Northern Ireland	33				35			
Scotland	34				43			
Wales	38				44			
Virginia, mean	36.8	36.0	28.5	22.8	41.3	41.7	35.0	29.0
Austria			53	44			57	52
Armenia				16				0
Bulgaria		44	42	34		47	46	42
Croatia	40	42	42	40	30	38	40	40
Czech Republic	43	50	50	43	32	45	48	48
Denmark	34	41	36	34	39	48	39	37
Estonia	52	50	53	44	27	29	42	36
Finland	49	53	44	35	48	53	48	37
Germany ¹			52	40			53	44
Greece	(3)	37	29	22	(3)	36	29	21
Hungary	42	43	43	33	37	38	43	35
Iceland	38	33	26	18	39	37	25	22
Italy	36	36	35	33	35	43	38	37
Latvia	49	52	51	48	28	37	38	39
Lithuania	47	63	63	42	23	38	43	31
Macedonia ²		29				25		
Poland	40	45	43	24	22	31	32	23
Romania		32	36	27		17	24	20
Slovak Republic	40	48	46	42	23	39	41	41
Slovenia	25	36	36	30	26	37	39	32
Switzerland			35	29			36	26
Blended, mean	41.2	43.2	42.9	33.9	31.5	37.5	40.1	33.2
Between types P	NS	NS	**	***	*	NS	NS	NS

Table 21 (continued/2)

	BOYS				GIRLS			
	1995	1999	2003	2007	1995	1999	2003	2007
Smoked in last month								
Ireland	38	32	28	19	46	42	38	27
Malta	33	28	27	25	30	33	26	26
Isle of Man			23	20			36	28
United Kingdom		31	27	17		37	34	26
England	33				41			
Northern Ireland	30				31			
Scotland	28				39			
Wales	35				37			
Virginia, mean	32.8	30.3	26.3	20.3	37.3	37.3	33.5	26.8
Austria			48	43			56	48
Armenia				17				1
Bulgaria		50	43	36		52	50	45
Croatia	34	40	37	38	29	36	37	39
Czech Republic	37	46	43	34	31	44	43	44
Denmark	25	34	27	30	32	42	32	34
Estonia	36	41	41	31	22	25	33	26
Finland	36	45	35	30	39	44	41	32
Germany ¹			42	31			46	35
Greece	23	35	26	24	24	36	30	21
Hungary	37	39	38	31	32	35	40	34
Iceland	32	26	21	14	32	31	21	18
Italy	36	37	36	35	36	43	39	40
Latvia	32	48	47	44	18	34	36	39
Lithuania	34	50	48	37	18	31	33	28
Macedonia ²		37				36		
Poland	33	38	32	22	23	28	22	21
Romania		31	33	27		20	26	24
Slovak Republic	34	40	40	36	20	36	37	38
Slovenia	20	28	36	28	19	30	38	31
Switzerland			33	30			35	29
Blended, mean	32.1	39.1	37.2	30.9	26.8	35.5	36.6	31.4
Between types P	NS	**	***	**	**	NS	NS	(*)

Table 21 (continued/3)

	BOYS				GIRLS			
	1995	1999	2003	2007	1995	1999	2003	2007
Smoked daily in last month								
Ireland	29	23	21	10	30	28	29	17
Malta	18	13	12	12	13	15	11	12
Isle of Man			14	12			23	18
United Kingdom		21	17	10		26	23	16
England	23				30			
Northern Ireland	18				19			
Scotland	21				29			
Wales	24				25			
Virginia, mean	22.2	19.0	16.0	11.0	24.3	23.0	21.5	15.8
Austria			37	31			41	31
Armenia				8				0
Bulgaria		38	34	28		41	39	35
Croatia	25	30	30	29	19	25	27	27
Czech Republic	27	32	29	22	18	30	25	26
Denmark	16	23	18	20	18	26	20	23
Estonia	26	30	32	20	13	15	23	14
Finland	24	31	23	20	24	26	26	19
Germany ¹			31	21			34	22
Greece	15	24	18	16	14	23	20	12
Hungary	32	28	29	22	26	22	28	24
Iceland	22	17	15	9	20	20	13	11
Italy	22	19	23	24	22	26	22	25
Latvia	26	39	35	33	13	26	22	25
Lithuania	22	41	36	25	8	21	18	14
Macedonia ²		25				24		
Poland	23	27	25	14	12	17	15	11
Romania		20	23	19		10	15	16
Slovak Republic	22	27	28	24	10	22	23	24
Slovenia	16	23	23	20	15	25	26	22
Switzerland			22	18			22	15
Blended, mean	22.7	27.9	26.9	21.2	16.6	23.5	24.2	19.8
Between types P	NS	(*)	**	***	*	NS	NS	(*)

¹ 6 Bundesländer in 2003 and 7 Bundesländer in 2007

² The former Yugoslav Republic of Macedonia

³ Not available due to different questionnaire wording, omitted from mean and t-test.

Number of decimal places is as shown in the original report.

P: t-test for difference between Virginia and blended groups, coded as *** $p < 0.001$, ** $0.001 < p < 0.01$, * $0.01 < p < 0.05$, (*) $0.05 < p < 0.1$, NS $p \geq 0.1$

All participants were aged 15-16. All smoking definitions refer to cigarettes – see §5.2.

Table 22 Progression to regular smoking – ESPAD

	BOYS				GIRLS			
	1995	1999	2003	2007	1995	1999	2003	2007
Smoked in last month, as % of ever smokers								
Ireland	52.8	47.1	45.2	37.3	60.5	53.2	52.8	51.9
Malta	60.0	51.9	55.1	56.8	54.5	55.9	54.2	56.5
Isle of Man			45.1	43.5			52.2	45.9
United Kingdom		51.7	50.0	36.2		52.9	54.0	44.1
England	51.6				57.7			
Northern Ireland	50.0				49.2			
Scotland	43.8				55.7			
Wales	54.7				50.7			
Virginia, mean	52.1	50.2	48.8	43.4	54.7	54.0	53.3	49.6
Austria			61.5	58.1			68.3	63.2
Armenia				37.0				14.3
Bulgaria		67.6	61.4	57.1		70.3	68.5	66.2
Croatia	47.9	57.1	53.6	58.5	43.3	52.2	52.1	56.5
Czech Republic	47.4	56.1	53.8	44.7	43.7	57.1	53.8	55.0
Denmark	36.8	47.2	42.2	48.4	46.4	57.5	49.2	59.6
Estonia	42.9	48.8	50.0	38.8	34.9	37.9	46.5	36.6
Finland	46.2	58.4	50.7	50.8	51.3	60.3	58.6	53.3
Germany ¹			55.3	44.3			59.7	50.0
Greece	47.9	59.3	52.0	53.3	51.1	60.0	56.6	46.7
Hungary	52.1	54.2	52.1	48.4	47.8	49.3	55.6	51.5
Iceland	52.5	47.3	43.8	40.0	51.6	52.5	46.7	47.4
Italy	57.1	59.7	58.1	58.3	55.4	64.2	58.2	62.5
Latvia	38.1	57.8	56.6	51.8	29.0	47.9	49.3	52.0
Lithuania	43.0	57.5	55.8	48.7	34.0	45.6	45.2	42.4
Macedonia ²		61.7				65.5		
Poland	44.6	50.0	42.7	38.6	39.7	45.2	34.4	38.9
Romania		46.3	47.1	46.6		39.2	44.1	47.1
Slovak Republic	44.2	52.6	51.9	49.3	35.7	52.2	51.4	52.1
Slovenia	33.3	42.4	54.5	45.9	32.2	46.9	56.7	50.8
Switzerland			50.8	50.8			53.8	50.0
Blended, mean	45.3	54.4	52.3	48.5	42.6	53.2	53.1	49.8
Between types P	*	NS	NS	NS	***	NS	NS	NS

Table 22 (continued)

	BOYS				GIRLS			
	1995	1999	2003	2007	1995	1999	2003	2007
Smoked daily in last month, as % of ever smokers								
Ireland	40.3	33.8	33.9	19.6	39.5	35.4	40.3	32.7
Malta	32.7	24.1	24.5	27.3	23.6	25.4	22.9	26.1
Isle of Man			27.5	26.1			33.3	29.5
United Kingdom		35.0	31.5	21.3		37.1	36.5	27.1
England	35.9				42.3			
Northern Ireland	30.0				30.2			
Scotland	32.8				41.4			
Wales	37.5				34.2			
Virginia, mean	34.9	31.0	29.3	23.6	35.2	32.7	33.3	28.9
Austria			47.4	41.9			50.0	40.8
Armenia				17.4				0.0
Bulgaria		51.4	48.6	44.4		55.4	53.4	51.5
Croatia	35.2	42.9	43.5	44.6	28.4	36.2	38.0	39.1
Czech Republic	34.6	39.0	36.3	28.9	25.4	39.0	31.3	32.5
Denmark	23.5	31.9	28.1	32.3	26.1	35.6	30.8	40.4
Estonia	31.0	35.7	39.0	25.0	20.6	22.7	32.4	19.7
Finland	30.8	40.3	33.3	33.9	31.6	35.6	37.1	31.7
Germany ¹			40.8	30.0			44.2	31.4
Greece	31.3	40.7	36.0	35.6	29.8	38.3	37.7	26.7
Hungary	45.1	38.9	39.7	34.4	38.8	31.0	38.9	36.4
Iceland	36.1	30.9	31.3	25.7	32.3	33.9	28.9	28.9
Italy	34.9	30.6	37.1	40.0	33.8	38.8	32.8	39.1
Latvia	31.0	47.0	42.2	38.8	21.0	36.6	30.1	33.3
Lithuania	27.8	47.1	41.9	32.9	15.1	30.9	24.7	21.2
Macedonia ²		41.7				43.6		
Poland	31.1	35.5	33.3	24.6	20.7	27.4	23.4	20.4
Romania		29.9	32.9	32.8		19.6	25.4	31.4
Slovak Republic	28.6	35.5	36.4	32.9	17.9	31.9	31.9	32.9
Slovenia	26.7	34.8	34.8	32.8	25.4	39.1	38.8	36.1
Switzerland			33.8	30.5			33.8	25.9
Blended, mean	32.0	38.5	37.7	33.0	26.2	35.0	34.9	31.0
Between types P	NS	NS	*	**	*	NS	NS	NS

Table 22 (continued/2)

	BOYS				GIRLS			
	1995	1999	2003	2007	1995	1999	2003	2007
Smoked daily in last month, as % of ever smoker of 10 cigarettes								
Ireland	60.4	53.5	58.3	45.5	57.7	56.0	70.7	63.0
Malta	56.3	40.6	46.2	48.0	43.3	42.9	42.3	50.0
Isle of Man			56.0	50.0			60.5	51.4
United Kingdom		63.6	63.0	50.0		65.0	65.7	53.3
England	63.9				68.2			
Northern Ireland	54.5				54.3			
Scotland	61.8				67.4			
Wales	63.2				56.8			
Virginia, mean	60.0	52.6	55.9	48.4	58.0	54.6	59.8	54.4
Austria			69.8	70.5			71.9	59.6
Armenia				50.0				(4)
Bulgaria		86.4	81.0	82.4		87.2	84.8	83.3
Croatia	62.5	71.4	71.4	72.5	63.3	65.8	67.5	67.5
Czech Republic	62.8	64.0	58.0	51.2	56.3	66.7	52.1	54.2
Denmark	47.1	56.1	50.0	58.8	46.2	54.2	51.3	62.2
Estonia	50.0	60.0	60.4	45.5	48.1	51.7	54.8	38.9
Finland	49.0	58.5	52.3	57.1	50.0	49.1	54.2	51.4
Germany ¹			59.6	52.5			64.2	50.0
Greece	(3)	64.9	62.1	72.7	(3)	63.9	69.0	57.1
Hungary	76.2	65.1	67.4	66.7	70.3	57.9	65.1	68.6
Iceland	57.9	51.5	57.7	50.0	51.3	54.1	52.0	50.0
Italy	61.1	52.8	65.7	72.7	62.9	60.5	57.9	67.6
Latvia	53.1	75.0	68.6	68.8	46.4	70.3	57.9	64.1
Lithuania	46.8	65.1	57.1	59.5	34.8	55.3	41.9	45.2
Macedonia ²		86.2				96.0		
Poland	57.5	60.0	58.1	58.3	54.5	54.8	46.9	47.8
Romania		62.5	63.9	70.4		58.8	62.5	80.0
Slovak Republic	55.0	56.3	60.9	57.1	43.5	56.4	56.1	58.5
Slovenia	64.0	63.9	63.9	66.7	57.7	67.6	66.7	68.8
Switzerland			62.9	62.1			61.1	57.7
Blended, mean	57.1	64.7	62.7	62.3	52.7	62.9	59.9	59.6
Between types P	NS	NS	NS	***	NS	NS	NS	NS

¹ 6 Bundesländer in 2003 and 7 Bundesländer in 2007

² The former Yugoslav Republic of Macedonia

³ Not available due to different questionnaire wording

⁴ No smokers of 10 cigarettes in lifetime, omitted from mean and t-test.

Derived from data originally given as whole numbers.

P: t-test for difference between Virginia and blended groups, coded as *** $p < 0.001$, ** $0.001 < p < 0.01$, * $0.01 < p < 0.05$, (*) $0.05 < p < 0.1$, NS $p \geq 0.1$

All participants were aged 15-16. All smoking definitions refer to cigarettes – see §5.2.

Table 23 Age of starting to smoke – ESPAD

	BOYS				GIRLS			
	1995	1999	2003	2007	1995	1999	2003	2007
Smoked first cigarette at age 13 or younger								
Ireland	55	51	41	31	38	55	49	33
Malta	35	35	27	22	33	38	30	26
Isle of Man			35	33			47	41
United Kingdom		42	37	29		53	45	36
England	46				53			
Northern Ireland	47				42			
Scotland	47				57			
Wales	44				48			
Virginia, mean	45.7	42.7	35.0	28.8	45.2	48.7	42.8	34.0
Austria			55	52			59	49
Armenia				24				5
Bulgaria		44	40	34		35	38	32
Croatia	46	45	44	39	35	34	39	31
Czech Republic	54	59	56	58	36	45	52	56
Denmark	47	46	38	34	42	45	36	28
Estonia	69	60	64	66	40	36	48	50
Finland	63	57	54	42	54	47	49	37
Germany ¹			59	50			58	45
Greece	22	23	22	21	17	17	17	12
Hungary	42	48	45	40	34	42	43	40
Iceland	37	35	28	21	37	31	24	18
Italy	33	27	33	30	23	22	33	27
Latvia	64	68	65	67	35	46	50	52
Lithuania	62	65	66	59	29	35	44	43
Macedonia ²		26				15		
Poland	47	48	49	36	26	29	31	26
Romania		42	43	36		21	26	22
Slovak Republic	59	56	57	55	31	36	46	45
Slovenia	42	39	49	39	35	33	43	33
Switzerland			47	38			39	32
Blended, mean	49.1	46.4	48.1	42.1	33.9	33.5	40.8	34.2
Between types P	NS	NS	**	**	*	(*)	NS	NS

Table 23 (continued)

	BOYS				GIRLS			
	1995	1999	2003	2007	1995	1999	2003	2007
Smoked daily at age 13 or younger								
Ireland	20	17	12	6	16	19	16	10
Malta	9	9	5	6	8	10	8	6
Isle of Man			7	8			18	11
United Kingdom		16	9	7		24	18	11
England	16				22			
Northern Ireland	15				13			
Scotland	15				23			
Wales	10				20			
Virginia, mean	14.2	14.0	8.3	6.8	17.0	17.7	15.0	9.5
Austria			13	10			14	9
Armenia				4				0
Bulgaria		11	10	7		8	11	8
Croatia	15	14	13	11	7	8	9	6
Czech Republic	10	12	14	14	6	9	11	12
Denmark	9	12	11	6	10	12	13	8
Estonia	15	12	21	17	4	4	13	8
Finland	18	17	15	9	16	14	15	7
Germany ¹			18	9			19	11
Greece	7	5	4	3	5	3	4	1
Hungary	9	11	7	7	5	8	5	6
Iceland	11	9	9	4	12	9	8	5
Italy	5	5	6	6	4	7	6	5
Latvia	10	13	19	16	3	6	10	8
Lithuania	13	17	19	10	3	6	7	4
Macedonia ²		6				3		
Poland	9	10	13	7	3	3	5	4
Romania		7	9	6		2	3	2
Slovak Republic	11	12	15	16	4	7	11	12
Slovenia	5	5	7	6	4	5	7	5
Switzerland			9	6			9	5
Blended, mean	10.5	10.5	12.2	8.7	6.1	6.7	9.5	6.3
Between types P	(*)	NS	(*)	(*)	**	NS	(*)	(*)

Table 23 (continued/2)

	BOYS				GIRLS			
	1995	1999	2003	2007	1995	1999	2003	2007
Smoked first cigarette at age 13 or younger, as % of ever smokers³								
Ireland	76.4	75.0	66.1	62.0	50.7	71.4	69.0	62.3
Malta	63.6	63.6	55.1	48.9	58.9	65.5	62.5	55.3
Isle of Man			68.6	73.3			69.1	68.3
United Kingdom		70.0	69.8	63.0		75.7	70.3	63.2
England	73.0				73.6			
Northern Ireland	78.3				66.7			
Scotland	74.6				81.4			
Wales	69.8				66.7			
Virginia, mean	72.6	69.5	64.9	61.8	66.3	70.9	67.7	62.3
Austria			70.5	70.3			72.0	64.5
Armenia				51.1				62.5
Bulgaria		60.3	58.0	54.0		47.9	52.8	47.8
Croatia	65.7	64.3	63.8	60.9	52.2	49.3	55.7	44.9
Czech Republic	69.2	72.0	70.0	76.3	51.4	59.2	65.8	70.0
Denmark	70.1	63.9	60.3	54.8	60.9	60.8	56.3	48.3
Estonia	81.2	71.4	78.0	82.5	64.5	55.4	67.6	71.4
Finland	80.8	74.0	77.1	70.0	72.0	64.4	70.0	61.7
Germany ¹			77.6	72.5			74.4	65.2
Greece	45.8	39.0	44.9	45.7	36.2	28.8	32.7	26.7
Hungary	59.2	66.7	61.6	63.5	50.7	60.0	60.6	60.6
Iceland	61.7	64.8	59.6	60.0	59.7	54.4	53.3	47.4
Italy	52.4	43.5	54.1	50.8	34.8	33.3	49.3	42.2
Latvia	76.2	81.9	78.3	78.8	55.6	64.8	67.6	68.4
Lithuania	78.5	76.5	75.9	77.6	54.7	51.5	60.3	65.2
Macedonia ²		43.3				27.3		
Poland	63.5	64.0	69.0	62.1	44.1	46.8	50.0	48.1
Romania		62.7	61.4	62.1		41.2	44.1	44.0
Slovak Republic	77.6	73.7	74.0	74.3	56.4	52.9	64.8	61.6
Slovenia	70.0	59.1	73.1	63.9	61.4	52.4	65.2	54.1
Switzerland			73.4	63.3			60.9	54.2
Blended, mean	68.0	63.6	67.4	64.7	53.9	50.0	59.1	55.4
Between types P	NS	NS	NS	NS	*	**	*	(*)

¹ 6 Bundesländer in 2003 and 7 Bundesländer in 2007

² The former Yugoslav Republic of Macedonia

³ Derived from data originally given as whole numbers.

P: t-test for difference between Virginia and blended groups, coded as *** $p < 0.001$, ** $0.001 < p < 0.01$, * $0.01 < p < 0.05$, (*) $0.05 < p < 0.1$, NS $p \geq 0.1$

All participants were aged 15-16. All smoking definitions refer to cigarettes – see §5.2.

Table 24 Smoking prevalence, susceptibility to initiate and desire to stop - GYTS

Country	Region ¹	Year(s) ²	Smoked cigarettes		Susceptible to initiate		Desire to stop		
			in last month		(among never smokers) ³		(among current smokers) ⁴		
			BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	Total
Bangladesh	National	2007	2.9	1.1	13.4	12.9	89.5		70.7
Benin	Average (2)	2003	15.2	2.2	15.6	15.9	83.7		82.4
Botswana	National	2008	18.1	10.9	33.3	22.5	78.1	83.0	78.0
Burkina Faso	Average (2)	2006	17.7	3.0	12.9	5.2	92.0		90.9
Burundi	National	2008	5.8	3.2	20.1	16.2			
Cambodia	National	2003	4.6	0.2	10.3	3.9			
Cameroon	Central District	2008	8.8	3.0	13.2	8.7	84.0		81.8
Central African Rep	Bangui	2008	10.4	4.3	16.1	18.3			84.9
Chad	National	2008	8.4	4.3	20.0	20.1			
Comoros	National	2007	13.5	6.9	11.3	9.5			
Congo	National	2006	15.0	8.1	17.7	12.9	84.3		77.1
Dem. Rep. of Congo	Average (2)	2008	10.9	4.1	29.2	20.3	74.4		75.6
Côte d'Ivoire	Average (2)	2003	20.1	7.0	14.0	10.5	92.5		90.9
Djibouti	National	2003	8.6	2.6	22.3	16.7			70.8
Equatorial Guinea	National	2008	9.9	3.4	17.2	15.4			
Eritrea	National	2006	2.0	0.6	15.1	9.5	76.2		80.7
Ethiopia	Addis Ababa	2003	2.5	0.7	12.8	11.0			
Ghana	National	2006	2.8	2.3	13.8	14.1	87.4	78.7	80.2
Guinea Bissau	Bissau	2008	7.2	3.0	25.4	23.7	76.7		81.0
Guinea	National	2008	11.6	1.6	15.4	17.1	84.1		85.5
India	National	2006	5.4	1.6	16.4	13.5	70.0	72.2	70.3
Kenya	National	2007	11.2	5.2	19.8	19.1	90.3	76.9	85.3
Laos	Average (4)	2007	10.1	1.1	10.5	4.2	91.1		91.6
Lesotho	National	2008	11.8	7.5	33.7	33.1	81.7	82.2	82.0
Liberia	Monrovia	2008	2.0	1.2	6.4	3.4			
Madagascar	National	2008	30.7	10.2	12.3	12.5	84.9		87.8
Malawi	National	2005	3.8	2.2	3.6	2.1			68.0
Mali	National	2008	17.4	2.5	8.6	3.4	64.9		62.8
Mauritius	National	2008	20.3	7.7	12.1	10.7	70.3	44.3	62.3
Mozambique	Average (2)	2002-07	4.8	2.2	25.6	24.8			
Myanmar	National	2007	8.5	1.3	15.9	8.1			83.0
Nepal	National	2007	5.7	1.9	8.6	6.3			92.0
New Zealand	National	2008	14.5	20.6	21.4	31.8	26.7	54.2	42.6
Niger	National	2006	11.7	1.1	15.6	8.1	74.8		73.1
Nigeria	Average (5)	2008	5.6	2.0	10.7	10.5			
Pakistan	Average (6)	2003-08	2.2	0.2	8.6	5.9			
Papua New Guinea	National	2007	52.1	35.8	17.8	14.8	82.6	81.4	82.3
Rwanda	National	2008	3.0	0.9	12.0	7.8			
Seychelles	National	2007	23.2	20.0	14.4	16.2			73.4
Sierra Leone	Western Area	2008	6.6	5.0	17.5	13.6			74.9
Somalia	Somaliland	2007	4.9	4.5	25.1	22.2			
South Africa	National	2008	17.9	10.6	17.4	14.3	78.6	75.2	77.0
Sri Lanka	National	2007	1.6	0.9	5.2	2.2			
Swaziland	National	2005	8.9	3.2	9.1	7.4	74.5	66.1	72.2
Tanzania	Average (3)	2008	3.4	1.9	2.6	2.2			
Togo	National	2007	9.1	1.7	9.6	8.2	81.1		78.5
Vietnam	National	2007	5.9	1.2	10.3	3.9	79.2	59.4	75.4
Yemen	National	2008	4.2	1.6	22.1	27.4			
Zambia	Average (3)	2007	10.7	8.1	23.0	21.2			
Zimbabwe	Average (3)	2008	3.8	1.6	32.7	34.1			
Virginia, mean			10.3	4.8	16.0	13.5	79.0	70.3	77.7

Table 24 (continued)

Country	Region ¹	Year(s) ²	Smoked cigarettes in last month		Susceptible to initiate (among never smokers) ³		Desire to stop (among current smokers) ⁴		
			BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	Total
Afghanistan	Kabul	2004	7.6	0.0	9.0	8.9			
Albania	National	2004	11.9	5.8	15.5	13.1	71.9	60.9	68.0
Algeria	Average (3)	2007	15.8	1.4	20.8	9.9	84.2		83.8
Argentina	National	2007	21.1	27.3	24.3	31.6	47.3	52.3	50.2
Armenia	National	2004	10.3	0.9	97.7	98.4	81.4		80.3
Belarus	National	2004	31.2	21.7	43.4	52.6	72.8	71.2	72.1
Brazil	Average (23)	2002-07	9.8	10.8	14.1	16.5			
Bulgaria	National	2008	24.4	31.6	27.0	36.4	48.8	48.8	49.1
Cape Verde	National	2007	3.7	3.1	16.4	14.6			
Chile	Average (8)	2000-08	26.7	35.9	26.4	32.5	58.2	60.0	59.2
Colombia	Bogota	2007	25.4	26.6	31.9	31.8	65.5	63.1	64.7
Costa Rica	National	2008	9.4	9.7	16.5	18.3	55.2	59.7	57.5
Croatia	National	2007	21.7	25.6	15.3	24.7	43.6	38.5	41.2
Czech Republic	National	2007	29.8	32.7	18.4	35.9	57.3	48.4	52.6
Dominican Republic	National	2004	7.3	5.8	14.4	13.8		54.0	50.9
Ecuador	Average (3)	2007	28.2	21.2	22.4	30.4	66.9		61.8
Egypt	National	2005	5.9	1.4	22.3	14.1	86.7		78.7
El Salvador	National	2003	18.4	10.9	11.8	10.0	96.2		97.7
Estonia	National	2007	28.2	26.2	25.3	34.3	70.4	69.6	69.8
Georgia	National	2008	15.2	2.8	33.1	22.0			67.0
Greece	National	2005	11.3	9.0	19.4	19.4	37.5	37.2	37.6
Guatemala	National	2008	13.7	9.1	16.4	13.7	65.6	53.4	60.1
Honduras	Average (2)	2003	15.7	10.8	23.7	28.1			
Hungary	National	2008	21.6	23.9	16.4	21.0	40.1	41.0	41.4
Iran	National	2007	5.1	0.9	10.3	7.0			
Jordan	National	2007	13.2	7.1	21.1	20.3	60.4	50.0	58.2
Korea	National	2008	10.8	6.3	20.3	19.8	70.7	59.5	66.1
Kosovo	National	2004	7.7	5.4	12.0	10.7	77.5	74.5	76.3
Latvia	National	2007	36.3	30.2	25.8	20.0	72.7	69.7	71.5
Lebanon	National	2005	11.8	5.6	21.8	19.7	56.3	49.7	54.0
Libya	National	2007	7.7	0.9	22.1	15.0			
Lithuania	National	2005	33.8	25.9	18.3	18.1	75.2	66.0	70.9
Macau	Macau	2005	11.0	9.8	14.0	16.3	38.4	46.7	42.1
Macedonia	National	2008	9.7	9.8	15.4	17.9	65.7	66.7	66.2
Maldives	National	2007	0.9	6.6	3.8	10.6		69.1	65.0
Mauritania	National	2006	20.3	18.3	18.8	20.6	76.3	70.2	73.7
Mexico	Average (33)	2003-08	19.6	16.3	25.4	26.2	54.3	51.4	52.5
Moldova	National	2008	18.5	5.6	19.7	18.1	84.7	66.8	79.7
Montenegro	National	2008	5.7	4.4	15.7	16.5	39.9		41.2
Morocco	National	2006	4.3	2.1					
Nicaragua	Average (5)	2003	22.3	14.2	27.6	19.6			
Panama	National	2008	5.9	2.8	12.3	8.3	69.7		65.9
Paraguay	National	2008	11.3	5.5	15.4	13.3	57.2	63.4	59.0
Peru	National	2007	12.9	17.7	25.0	29.7	73.1	71.0	72.2
Philippines	National	2007	23.4	12.0	15.0	11.6	88.0	89.3	88.1
Poland	National	2003	19.6	17.1	20.6	26.6	50.3	52.7	51.3
Romania	National	2004	21.5	14.3	19.7	33.7	46.5	66.0	55.4
Russia	National	2004	26.9	23.9	42.3	50.3	65.9	65.0	65.5
Serbia	National	2008	9.3	8.9	16.2	20.9	51.7	44.1	47.5

/continued

Table 24 (continued /2)

Country	Region ¹	Year(s) ²	Smoked cigarettes in last month		Susceptible to initiate (among never smokers) ³		Desire to stop (among current smokers) ⁴		
			BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	Total
Singapore	National	2000	10.5	7.5	9.2	8.6			
Slovak Republic	National	2007	26.5	23.4	17.7	29.5	63.3	67.3	64.8
Slovenia	National	2007	15.2	23.0	17.2	24.1	49.5	34.2	39.7
Syria	National	2007	19.1	5.9	17.8	12.5	83.0		79.7
Tadjikistan	National	2004	1.5	0.5	75.8	79.8			
Thailand	National	2005	17.4	4.8	8.7	10.0	75.5	70.9	72.3
Turkey	National	2003	9.4	3.5	8.2	5.3	68.9	60.2	65.3
Ukraine	National	2005	27.6	20.6	55.1	66.0	75.4	73.8	74.5
Uruguay	National	2007	16.4	22.9	17.8	33.0	45.8	46.7	46.3
Venezuela	National	1999 ⁵	6.0	8.4	10.9	13.6		74.2	69.8
Blended, mean			15.8	12.6	22.0	23.9	64.1	59.4	62.8
Between types P			**	***	**	***	***	*	***
Variant analysis ⁶									
Virginia, mean			9.3	3.8	14.5	12.2	78.4	65.9	77.4
Blended, mean			15.4	12.5	22.3	24.5	63.2	59.1	62.1
Between types P			***	***	**	***	***	NS	***

¹ National data used in preference to regional. Where more than one regional survey was available in a country, a simple average of the data is used, with number of regions shown in parentheses.

² Most recent data used.

³ Indicator not included in survey for Morocco.

⁴ Indicator not included in survey for Singapore. Other blank cells indicate data not available due to insufficient sample size. Some regional averages based on less than full number of regions.

⁵ More recent surveys are regional.

⁶ Excluding 14 Virginia and 7 blended countries with >15% usage of other tobacco products in last month (sexes combined).

P: t-test for difference between Virginia and blended groups, coded as *** $p < 0.001$, ** $0.001 < p < 0.01$, * $0.01 < p < 0.05$, (*) $0.05 < p < 0.1$, NS $p \geq 0.1$

All participants were aged 13-15. See §5.3 for definitions of the smoking indicators.

Table 25 Prevalence of current smoking. Summary of significant sex- and age-specific significant (p<0.05) differences noted

Source / Survey ¹	Smoking definition	Significant differences				
		Sex	Year	Age	Higher type ²	P
National smoking statistics 3 Virginia v 4 blended countries 1971-75, 76-80, 81-85, 86-90, 91-95, 96-2000, 01-05 Age 20-34, 35-49, 50-64, 65-79 Table 1 – 56 comparisons	Any product	No significant differences seen				
MONICA Up to 5 Virginia v 18 blended sites 1983-85, 88-90, 93-95 Age 25-34, 35-44, 45-54, 55-64 Table 6 – 24 comparisons	Daily cigarettes	Men	1983-85	25-34	B	<0.01
		Men	1993-95	25-34	B	<0.05
		Men	1993-95	35-44	B	<0.05
		Women	1983-85	55-64	V	<0.05
EB43 3 Virginia v 8 blended countries 1995 Age 15-24, 25-39, 40-54, 55+ Table 8 – 8 comparisons per definition	Packeted cigarettes	Men	1995	40-54	B	<0.05
		Women	1995	55+	V	<0.01
	Any product	Women	1995	55+	V	<0.05
EB66 4 Virginia v 19 blended countries 2006 Age 15-24, 25-39, 40-54, 55+ Table 13 – 8 comparisons per definition	Manufactured cigarettes	Men	2006	15-24	B	<0.001
		Men	2006	25-39	B	<0.01
	Manufactured cigarettes – regularity³	No significant differences seen				
	Any product	Men	2006	15-24	B	<0.001
		Men	2006	25-39	B	<0.05
HBSC Up to 7 Virginia v 23 blended countries 1997-98, 2001-02, 2005-06 Age 11, 13, 15 Table 17 – 16 or 18 comparisons per definition	Any product – at least weekly	Boys	2001-02	15	B	<0.001
		Boys	2005-06	15	B	<0.05
		Girls	1997-98	11	V	<0.05
		Girls	2001-02	11	V	<0.05
		Girls	1997-98	13	V	<0.001
		Girls	2001-02	13	V	<0.01
		Girls	1997-98	15	V	<0.05
		Any product – daily	Boys	2005-06	11	V
		Boys	1997-98	13	V	<0.05
		Boys	2001-02	15	B	<0.01
		Boys	2005-06	15	B	<0.05
		Girls	1997-98	11	V	<0.05
		Girls	1997-98	13	V	<0.001
		Girls	2001-02	13	V	<0.05
	Girls	1997-98	15	V	<0.01	

Table 25 (continued)

Source / Survey ¹	Smoking definition	Significant differences				
		Sex	Year	Age	Higher type ²	P
ESPAD Up to 8 Virginia v 21 blended countries 1995, 1999, 2003, 2007 Age 15-16 Table 21 – 8 comparisons per definition	Cigarettes in last month	Boys	1999	15-16	B	<0.01
		Boys	2003	15-16	B	<0.001
		Boys	2007	15-16	B	<0.01
		Girls	1995	15-16	V	<0.01
	Daily cigarettes in last month	Boys	2003	15-16	B	<0.01
		Boys	2007	15-16	B	<0.001
		Girls	1995	15-16	V	<0.05
GYTS 50 Virginia v 59 blended countries Most recent survey up to 2008 Age 13-15 Table 24 – 2 comparisons	Cigarettes in last month	Boys	to 2008	13-15	B	<0.05
		Girls	to 2008	13-15	B	<0.01

¹ Brief description including numbers of countries/sites compared, years and ages covered, Table number showing detailed results and number of comparisons made.

² Cigarette type with higher prevalence : V <0.05, <0.01 or <0.001 indicates Virginia significantly greater than blended, while B <0.05, <0.01 or <0.001 indicates blended significantly greater than Virginia

³ Regular MC smokers as % of all MC smokers

Table 26 Prevalence of ex smoking. Summary of significant sex- and age-specific significant (p<0.05) differences noted

Source / Survey ¹	Smoking definition	Significant differences				
		Sex	Year	Age	Higher type ²	P
National smoking statistics 3 Virginia v 4 blended countries 1976-80, 81-85, 86-90, 91-95, 96-2000 Age 20-34, 35-49, 50-64, 65-79 Table 2 – 40 comparisons	Any product	Men	1996-2000	20-34	V	<0.01
		Men	1996-2000	35-49	V	<0.05
		Men	1996-2000	50-64	V	<0.05
		Women	1996-2000	20-34	V	<0.05
MONICA Up to 5 Virginia v 18 blended sites 1983-85, 88-90, 93-95 Age 25-34, 35-44, 45-54, 55-64 Table 6 – 24 comparisons	Daily cigarettes	Women	1988-90	45-54	V	<0.01
		Women	1993-95	45-54	V	<0.01
		Women	1983-85	55-64	V	<0.05
		Women	1988-90	55-64	V	<0.01
		Women	1993-95	55-64	V	<0.05
EB43 3 Virginia v 8 blended countries 1995 Age 15-24, 25-39, 40-54, 55+ Table 8 – 8 comparisons	Any product	No significant differences seen				
EB66 4 Virginia v 19 blended countries 2006 Age 15-24, 25-39, 40-54, 55+ Table 13 – 8 comparisons	Any product	Women	2006	25-39	V	<0.05

¹ Brief description including numbers of countries/sites compared, years and ages covered, Table number showing detailed results and number of comparisons made.

² Cigarette type with higher prevalence : V <0.05, <0.01 or <0.001 indicates prevalence of ex smoking is significantly greater for Virginia than blended, while B <0.05, <0.01 or <0.001 indicates it is significantly greater for blended than Virginia.

Table 27 Age of starting to smoke. Summary of significant sex- and age-specific significant (p<0.05) differences noted

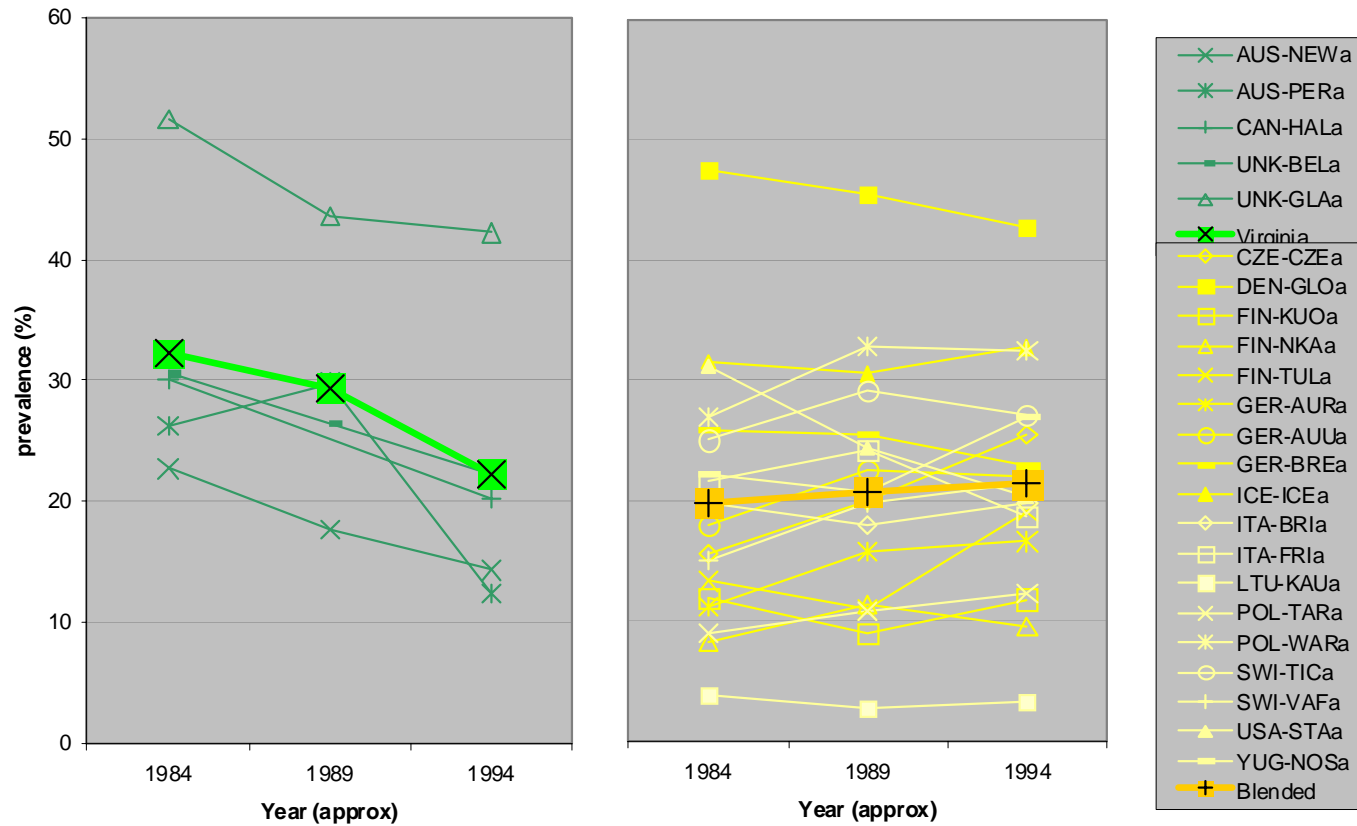
Source / Survey ¹	Smoking definition	Significant differences				
		Sex	Year	Age	Earlier type ²	P
HBSC Up to 6 Virginia v 23 blended countries 2001-02, 2005-06 Age 15 Table 19 – 2 comparisons per definition	Mean age first cigarette among ever smokers	No significant differences seen				
	Mean age first cigarette among weekly smokers	Girls	2001-02	15	V	<0.05
	Mean age first cigarette among daily smokers	Girls	2001-02	15	V	<0.01
	First cigarette at age 13 or younger, as % of ever smokers	Girls	2005-06	15	V	<0.05
ESPAD Up to 8 Virginia v 21 blended sites 1995, 1999, 2003, 2007 Age 15-16 Table 23 – 8 comparisons per definition	First cigarette at age 13 or younger	Boys	2003	15-16	B	<0.01
		Boys	2007	15-16	B	<0.01
		Girls	1995	15-16	V	<0.05
	Smoked daily at age 13 or younger	Girls	1995	15-16	V	<0.01
	First cigarette at age 13 or younger, as % of ever smokers	Girls	1995	15-16	V	<0.05
Girls		1999	15-16	V	<0.01	
Girls		2003	15-16	V	<0.05	

¹ Brief description including numbers of countries/sites compared, years and ages covered, Table number showing detailed results and number of comparisons made.

² Cigarette type with earlier start : V <0.05, <0.01 or <0.001 indicates age of starting to smoke is significantly earlier for Virginia than blended, while B <0.05, <0.01 or <0.001 indicates it is significantly earlier for blended than Virginia.

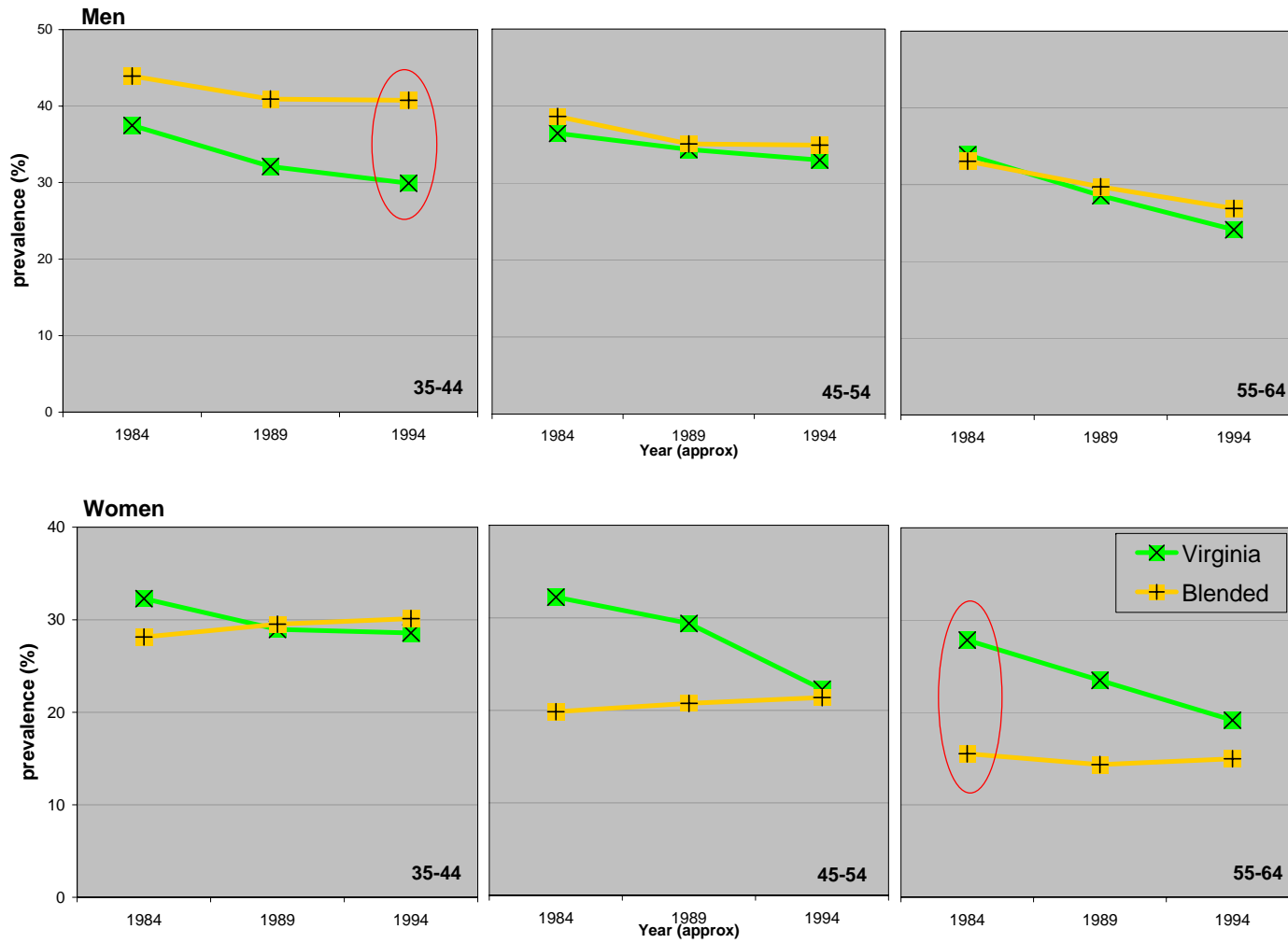
Figures

Figure 1 Current smoking prevalence – individual centres. Illustrative results for women age 45-54. MONICA



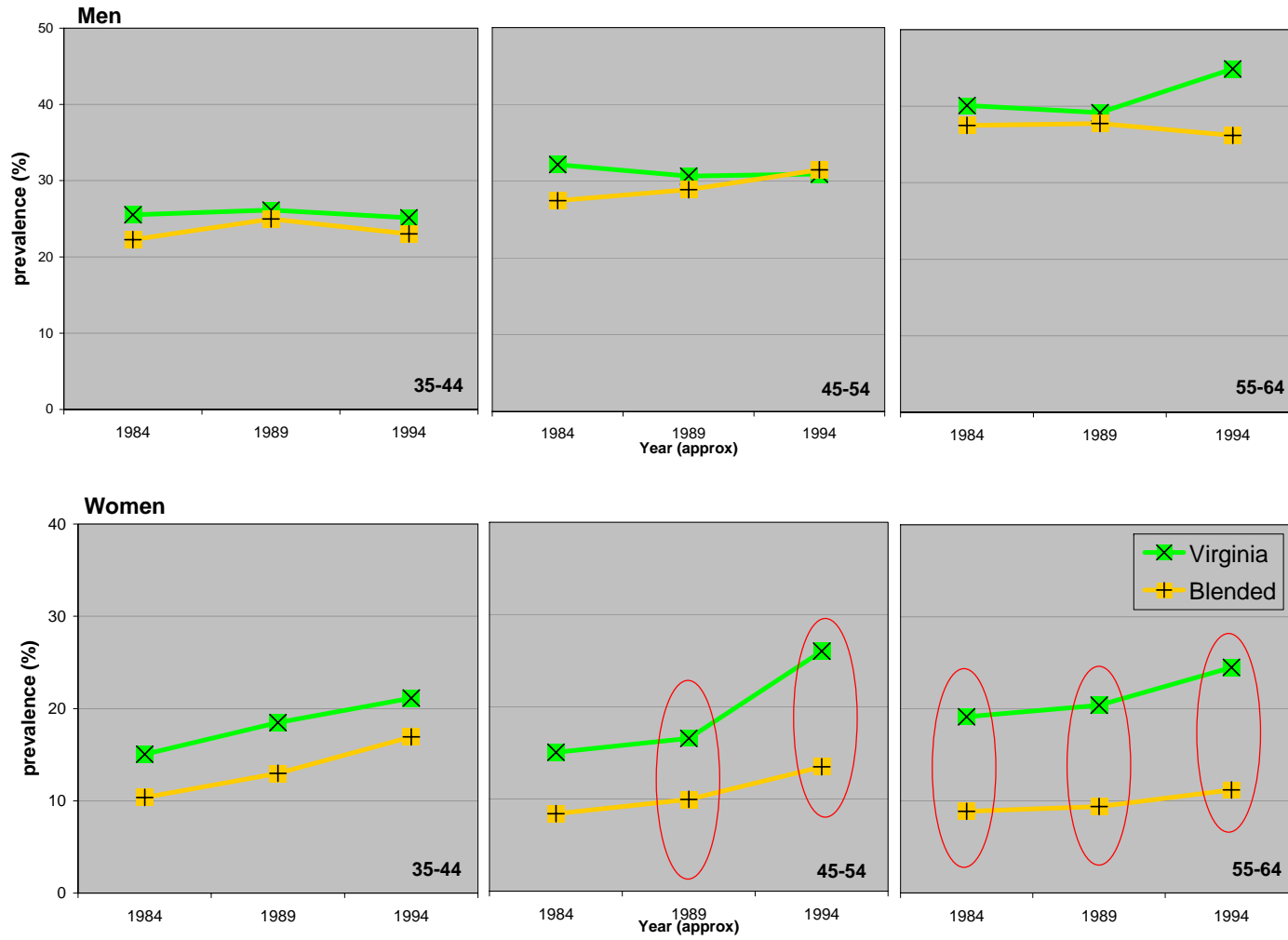
See also Table 6 for further details

Figure 2 Current smoking prevalence – means. MONICA



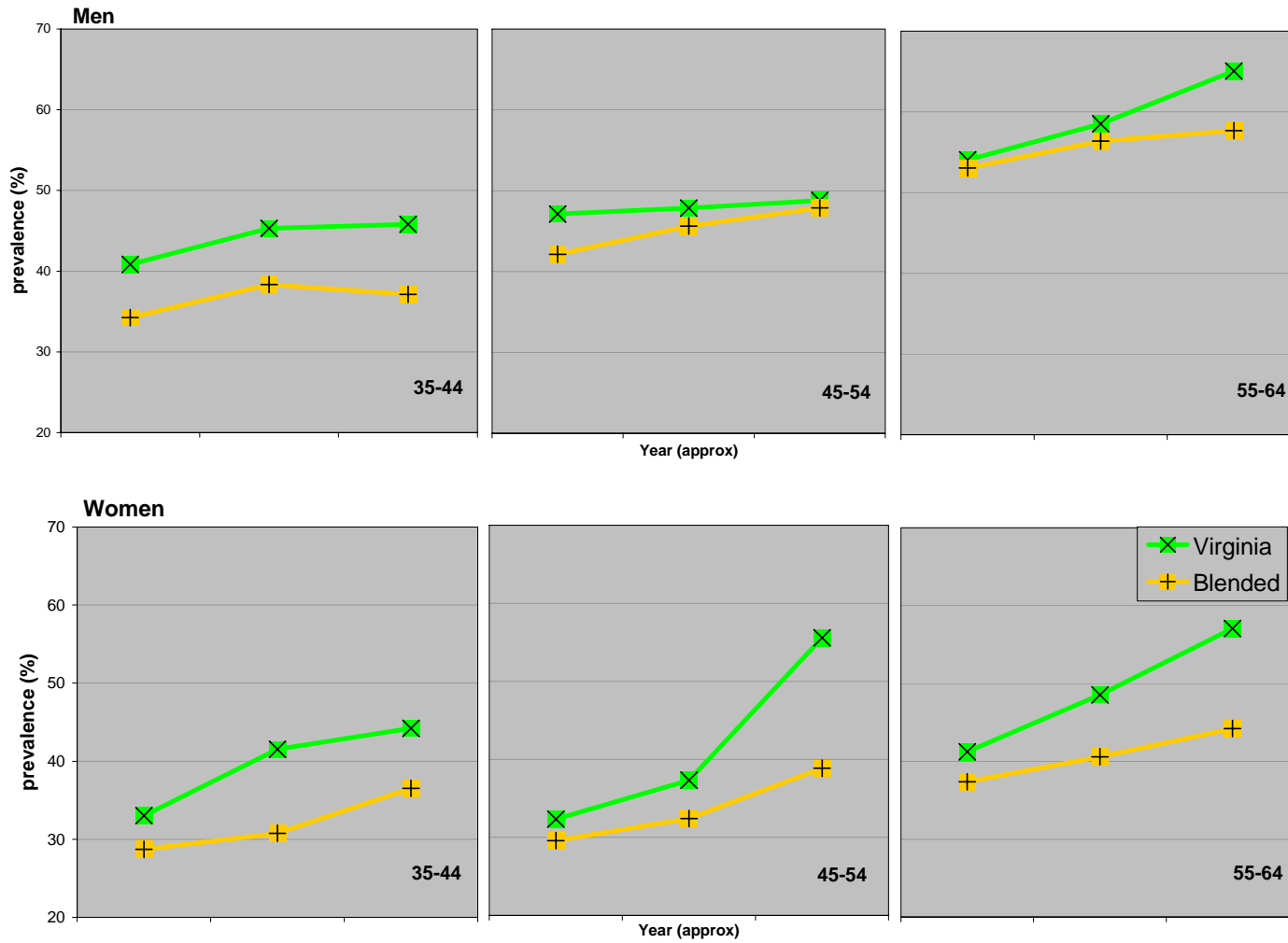
Red oval indicates significant ($p < 0.05$) difference. See also Table 6 for further details

Figure 3 Ex smoking prevalence – means. MONICA



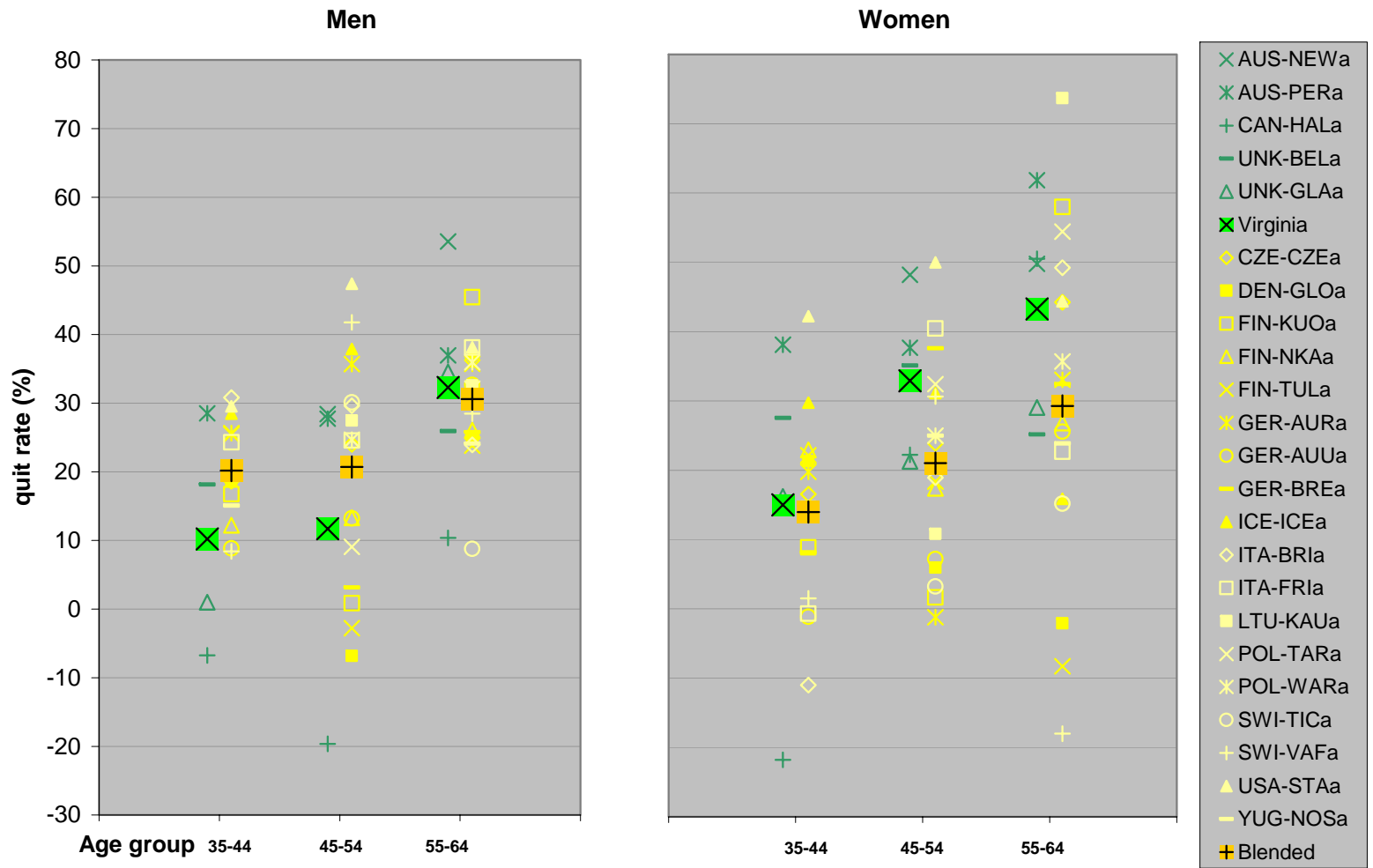
Red oval indicates significant ($p < 0.05$) difference. See also Table 6 for further details

Figure 4 Quit ratios – means. MONICA



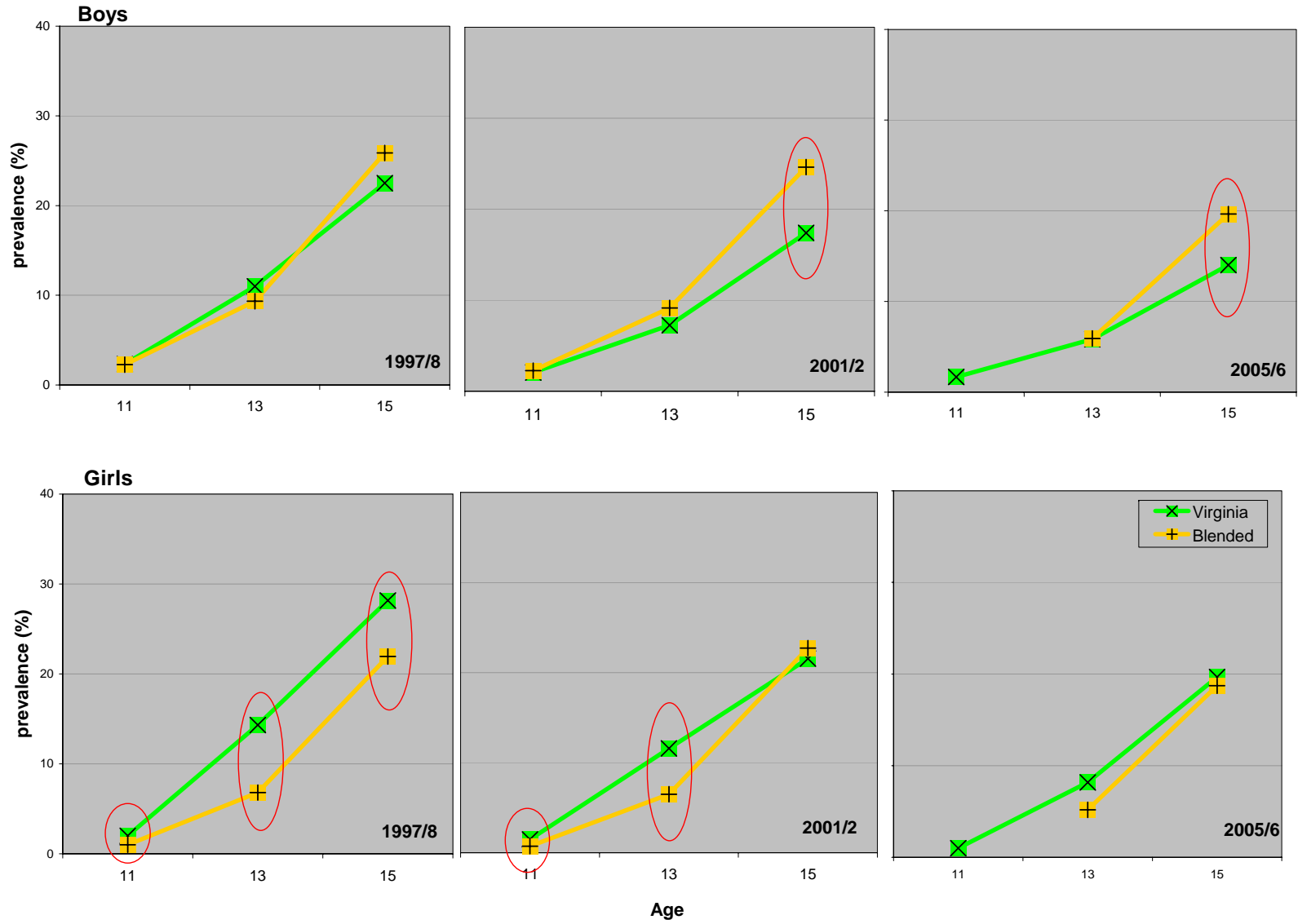
Red oval indicates significant ($p < 0.05$) difference. See also Table 6 for further details

Figure 5 Quit rates – centres and means. MONICA



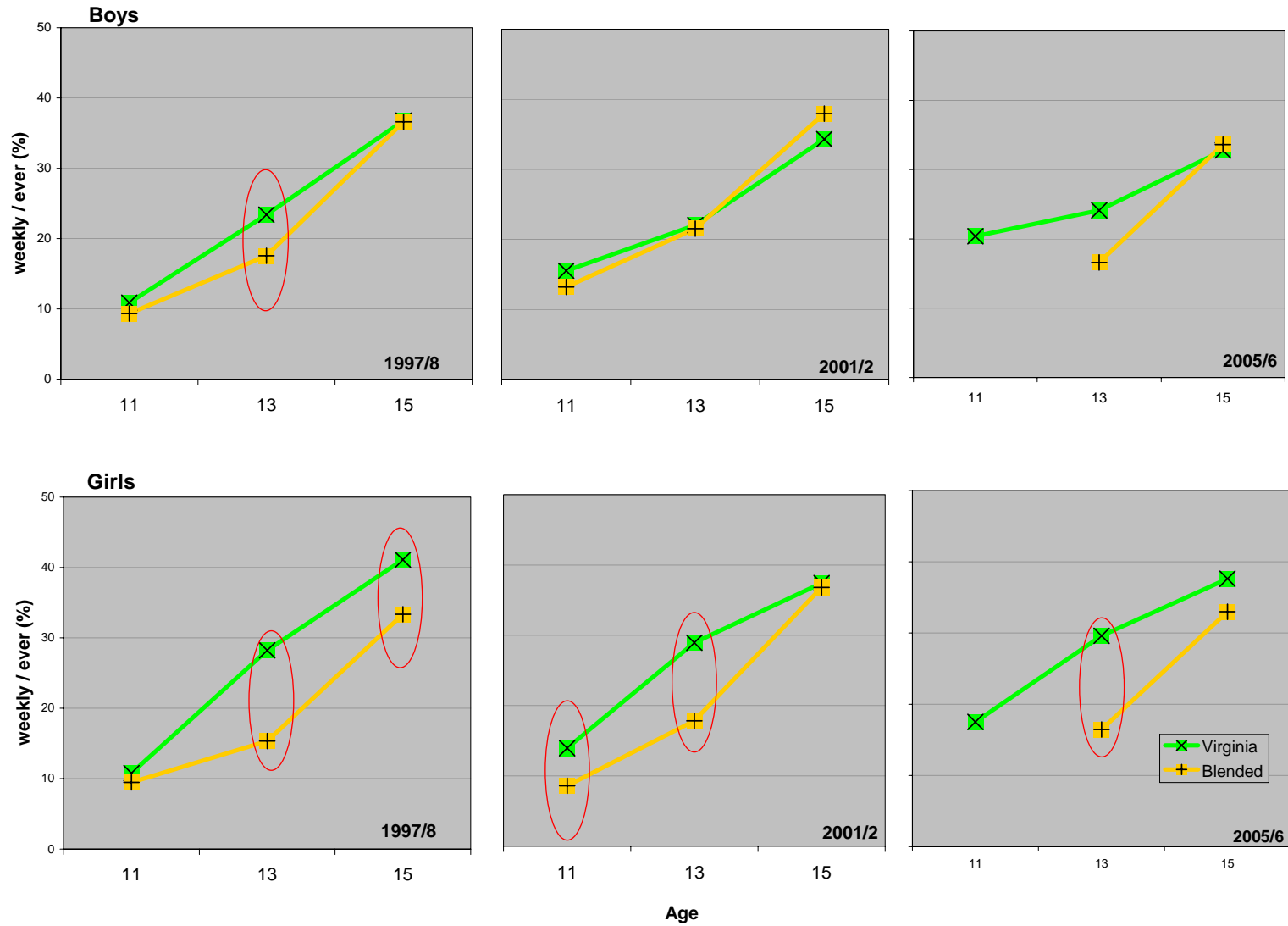
See also Table 7 for further details

Figure 6 Prevalence of weekly smoking – HBSC



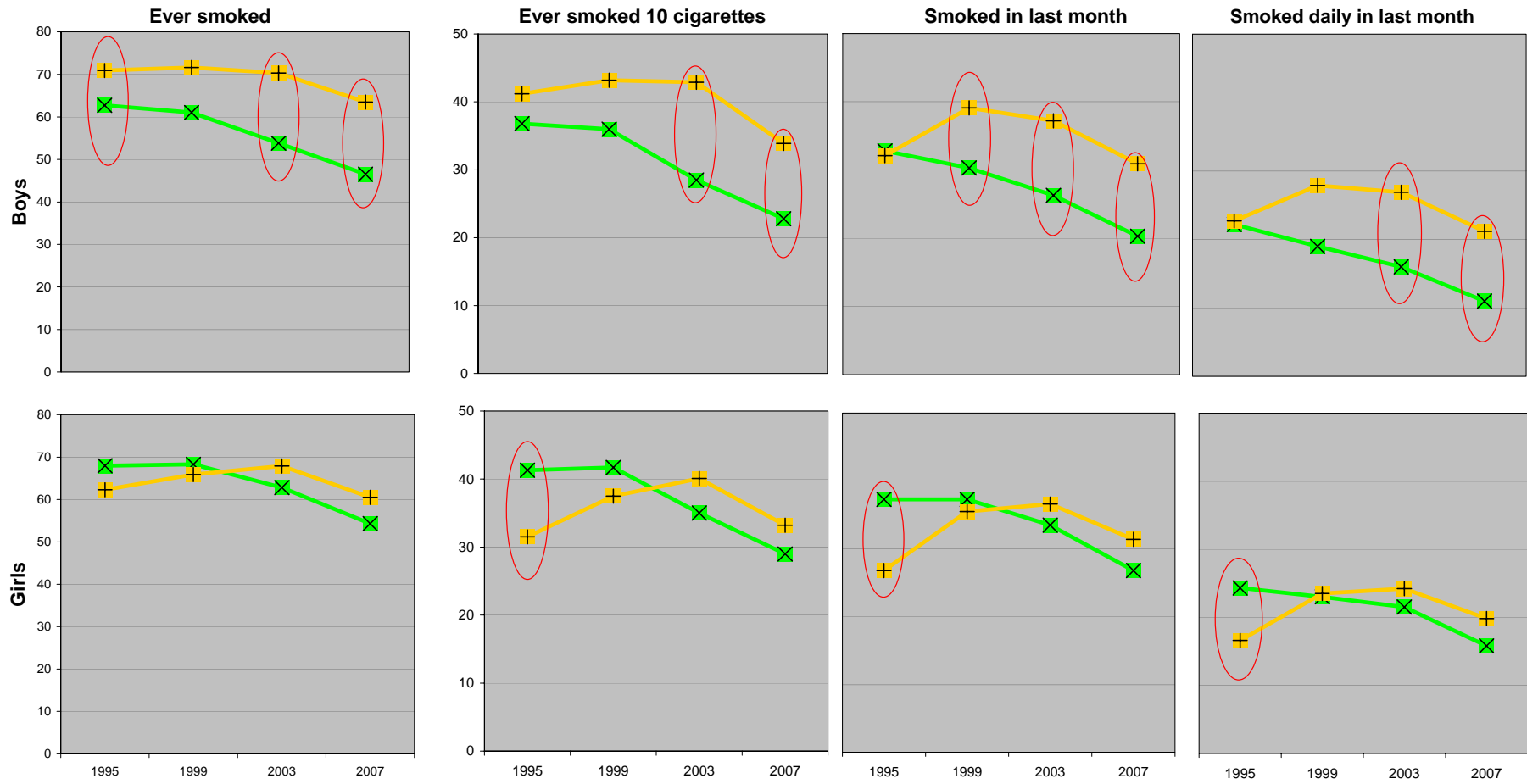
Red oval indicates significant ($p < 0.05$) difference. See also Table 17 for further details

Figure 7 Progression to regular smoking – HBSC



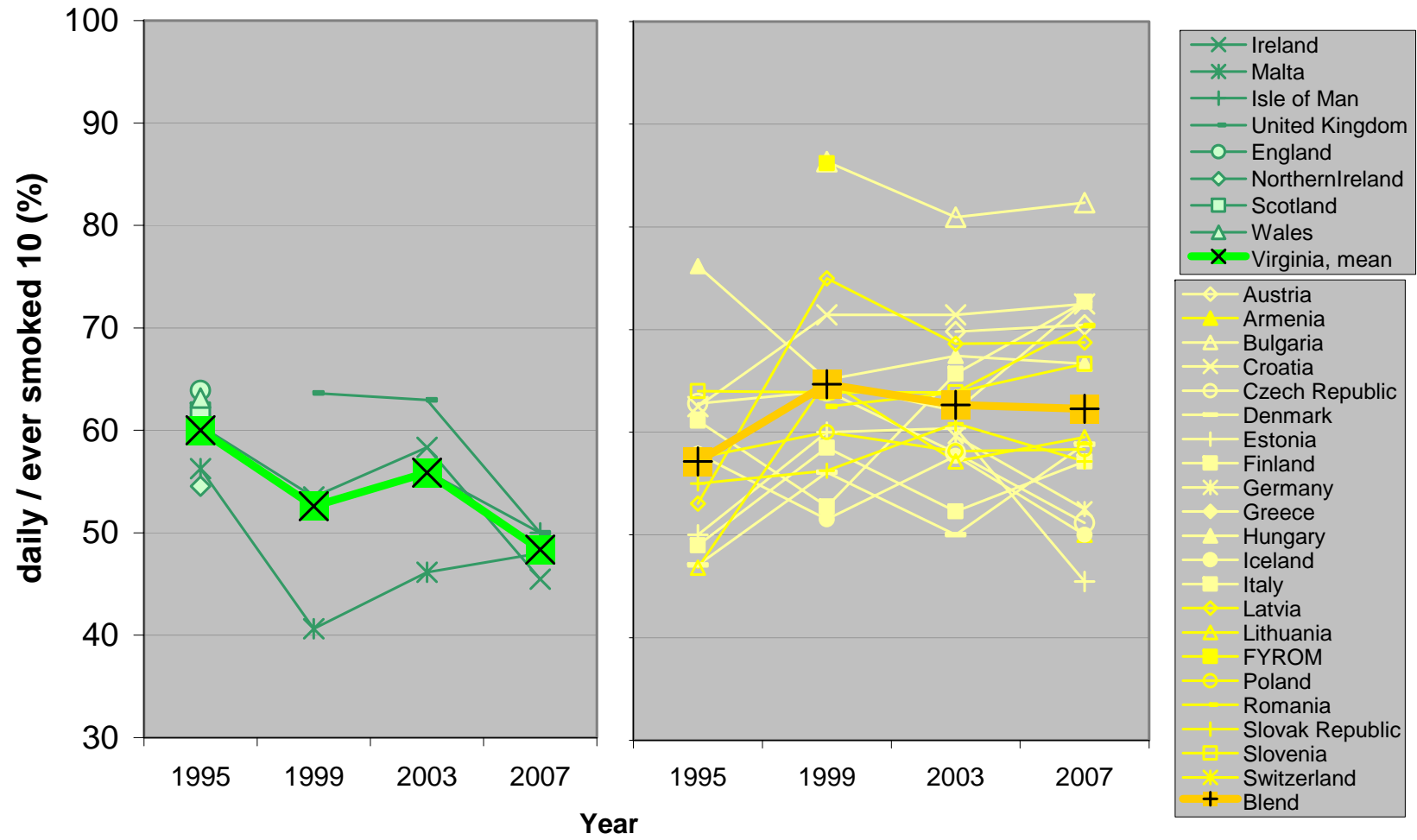
Red oval indicates significant ($p < 0.05$) difference. See also Table 18 for further details

Figure 8 Smoking prevalence, means – ESPAD



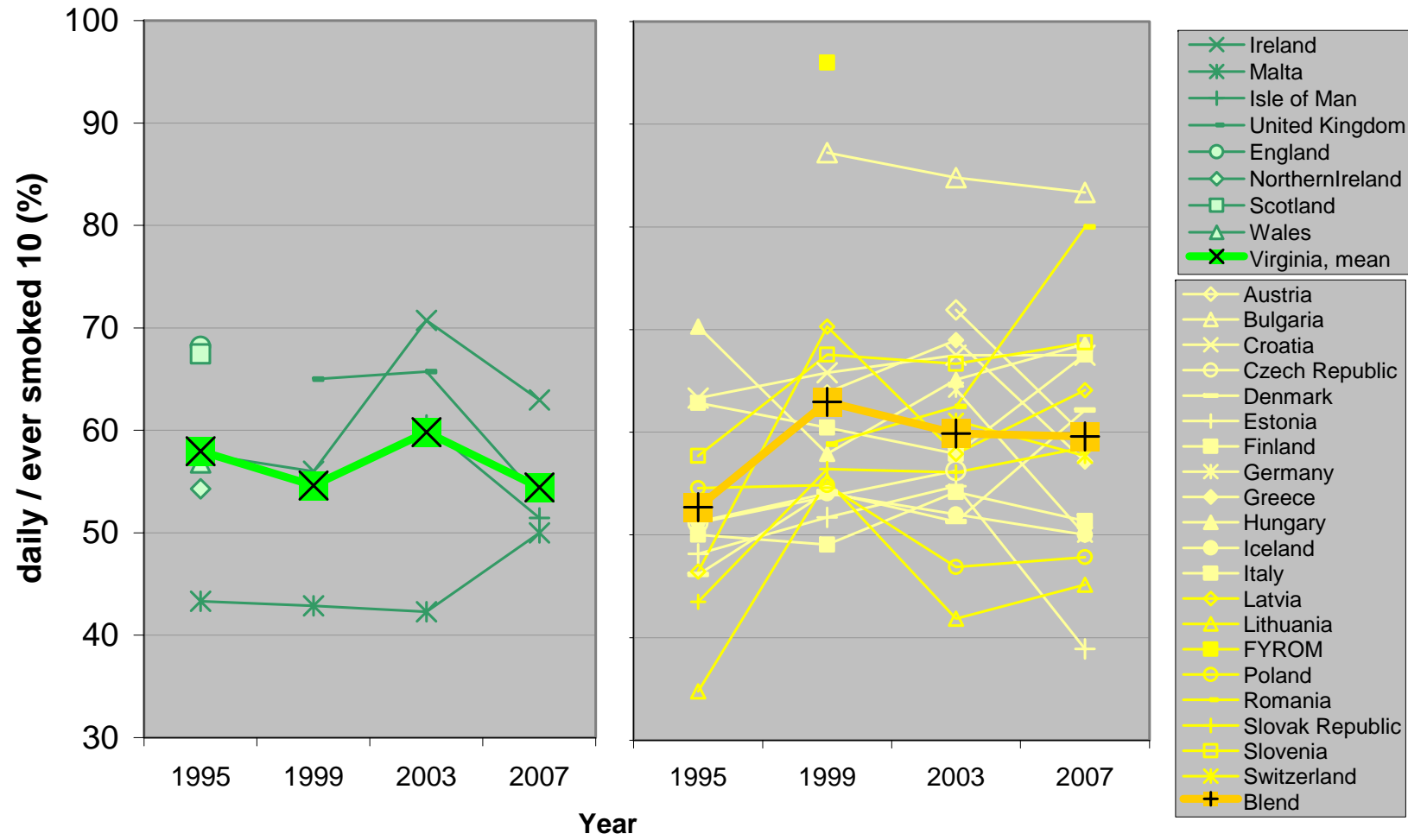
Red oval indicates significant ($p < 0.05$) difference. See also Table 21 for further details

Figure 9 Progression to regular smoking, boys. Countries and means. ESPAD



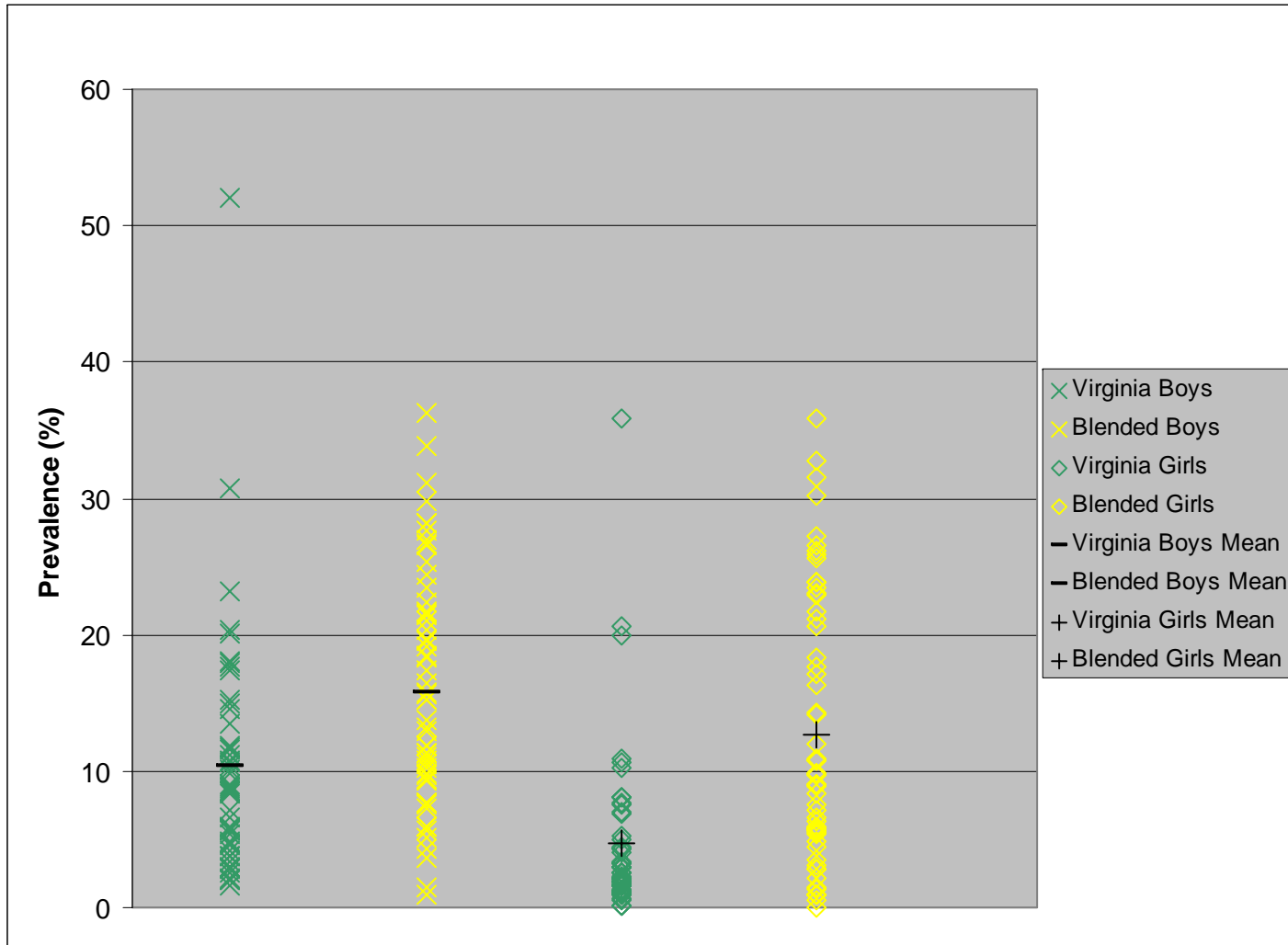
See also Table 22 for further details

Figure 10 Progression to regular smoking, girls. Countries and means. ESPAD



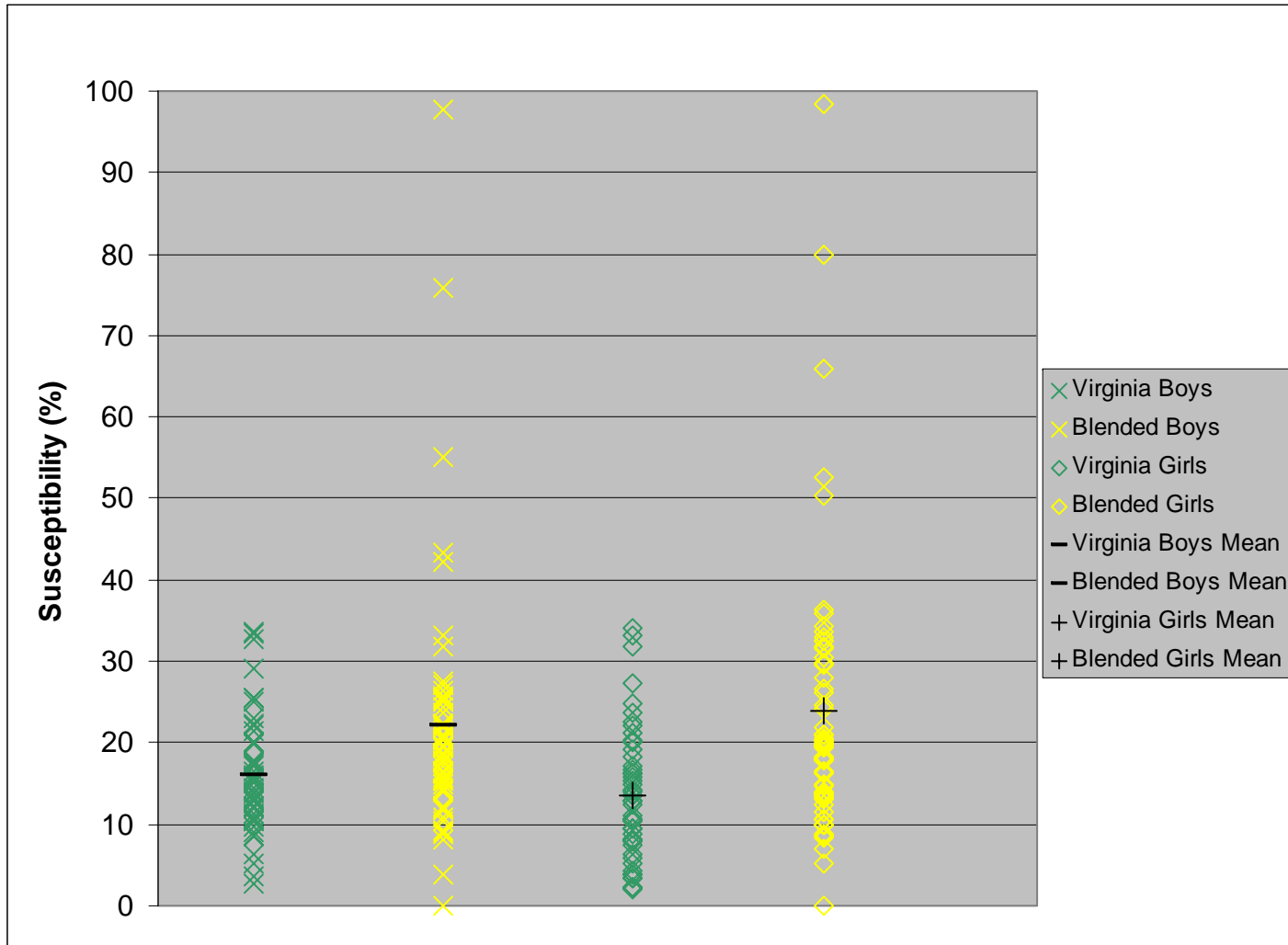
See also Table 22 for further details

Figure 11 Prevalence of smoking (smoked cigarettes in last month). Countries and means. GYTS



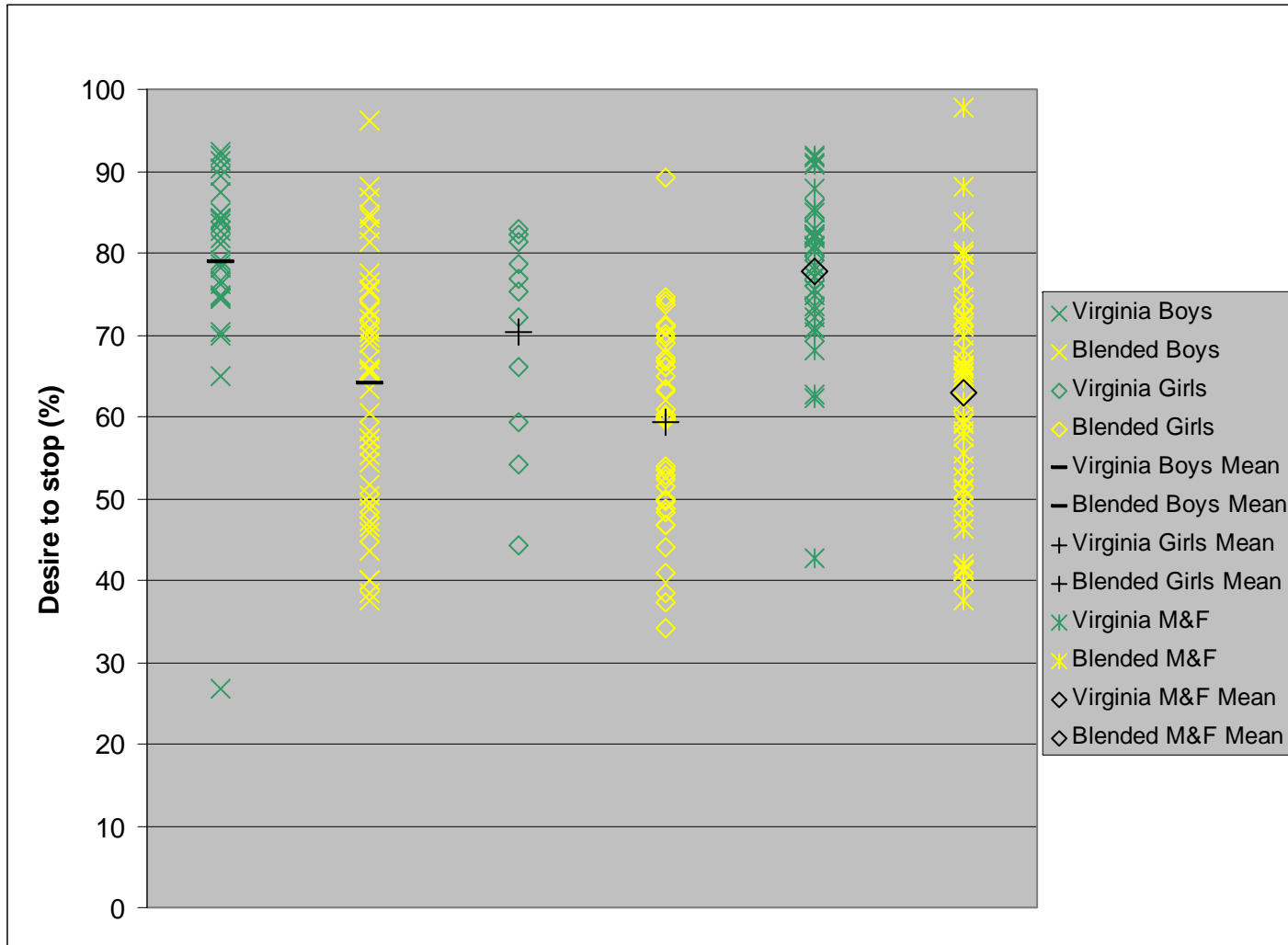
See also Table 24 for further details

Figure 12 Susceptibility to initiate tobacco use (among never smokers). Countries and means. GYTS



See also Table 24 for further details

Figure 13 Desire to stop smoking (among current smokers). Countries and means. GYTS



See also Table 24 for further details

Annex A Market share (2008) data of Virginia and American Blend cigarettes (%)

Source : Data made available by Philip Morris International (PMI).

PMI estimates based on AC Nielsen and other sources

Shading [by the current authors] indicates $\geq 75\%$ Virginia – green, $\geq 75\%$ American Blend – yellow

	Virginia	Blended
Afghanistan	0.0%	100.0%
Albania	2.1%	94.6%
Algeria	4.0%	96.0%
Andorra	3.6%	90.4%
Angola	69.4%	30.6%
Argentina	0.1%	83.2%
Armenia	2.9%	90.7%
Australia	92.0%	8.0%
Austria	5.0%	95.0%
Azerbaijan	0.0%	100.0%
Azores	0.0%	97.8%
Bahrain	50.8%	49.2%
Bangladesh	99.9%	0.1%
Belarus	0.5%	99.5%
Belgium	1.0%	96.0 %
Benin	92.1%	7.9%
Bolivia	0.0%	59.2%
Bosnia & Herz.	2.3%	53.5%
Botswana	95.0%	2.0%
Brazil	0.0%	99.9%
Brunei	32.6%	24.7%
Bulgaria	21.0%	78.0%
Burkina Faso	99.7%	0.3%
Burundi	80.0%	20.0%
Cambodia	97.4%	2.6%
Cameroon	99.6%	0.4%
Canada	99.0%	1.0%
Canary Islands	17.4%	71.3%
Cape Verde	3.7%	96.3%
Caribbean Other	57.0%	43.0%
Channel Islands	85.3%	14.7%
Chile	0.0%	100.0%
Colombia	0.0%	95.6%
Comoros	93.7%	6.3%
Congo	100.0%	0.0%
Corsica	5.7%	88.7%
Costa Rica	0.0%	100.0%
Croatia	0.1%	86.4%
Cuba	0.0%	10.0%
Czech Republic	1.0%	99.0%
Dem. Rep. of Congo	99.9%	0.1%
Denmark	17.0%	83.0%
Djibouti	85.8%	14.2%
Dominican Republic	0.0%	99.9%
East Timor	0.0%	15.2%

	Virginia	Blended
Ecuador	0.0%	96.4%
Egypt	4.0%	96.0%
El Salvador	0.0%	100.0%
Equatorial Guinea	87.7%	11.1%
Eritrea	100.0%	0.0%
Estonia	0.0%	100.0%
Ethiopia	99.5%	0.5%
Finland	0.0%	100.0%
France	8.0%	85.0%
Gabon	45.1%	53.8%
Gambia	45.9%	54.1%
Georgia	0.1%	84.9%
Germany	2.0%	97.0%
Ghana	100.0%	0.0%
Greece	7.0 %	91.0%
Greek Cyprus	60.9%	39.1%
Guatemala	0.0%	100.0%
Guinea	93.6%	6.4%
Guinea Bissau	100.0%	0.0%
Honduras	0.0%	100.0%
Hong Kong	5.1%	94.9%
Hungary	0.5%	99.0%
Iceland	0.0%	100.0%
India	99.9%	0.1%
Indonesia	2.8%	5.5%
Iran	0.0%	100.0%
Iraq	52.0%	48.0%
Ireland	87.0%	13.0%
Israel	2.5%	95.0%
Italy	0.0%	99.0%
Ivory Coast	95.0%	4.9%
Japan	3.5%	96.4%
Jordan	0.6%	95.4%
Kazakhstan	24.8%	54.9%
Kenya	100.0%	0.0%
Korea	15.6%	84.4%
Kosovo	1.8%	97.0%
Kuwait	32.1%	65.8%
Kyrgyzstan	16.3%	60.7%
Laos	99.3%	0.7%
Latvia	0.0%	100.0%
Lebanon	1.3%	98.7%
Lesotho	85.5%	11.0%
Liberia	96.1%	3.9%
Libya	0.0%	100.0%

	Virginia	Blended
Lithuania	0.0%	100.0%
Luxembourg	7.0%	90.0%
Macau	12.6%	87.4%
Macedonia	0.0%	86.1%
Madagascar	93.7%	6.3%
Madeira	2.1%	97.9%
Malawi	99.6%	0.4%
Malaysia	48.4%	47.8%
Maldives	15.3%	84.7%
Mali	100.0%	0.0%
Malta	87.0%	13.0%
Mauritania	0.1%	98.3%
Mauritius	98.2%	1.8%
Mayotte	1.6%	98.3%
Mexico	0.0%	88.4%
Moldova	0.4%	90.2%
Mongolia	0.0%	66.9%
Montenegro	1.6%	98.0%
Morocco	0.0%	86.5%
Mozambique	99.7%	0.3%
Myanmar	99.9%	0.1%
Namibia	74.9%	25.1%
Nepal	99.5%	0.5%
Netherlands	2.0%	98.0%
New Zealand	95.0%	5.0%
Nicaragua	0.0%	100.0%
Niger	99.8%	0.2%
Nigeria	100.0%	0.0%
North Korea	0.0%	100.0%
Norway	0.3%	99.7%
Oman	38.4%	61.6%
Other CEMAC	100.0%	0.0%
Other South Pacific	52.1%	47.9%
Pakistan	100.0%	0.0%
Palestine Auth. Area	49.5%	50.5%
Panama	0.0%	100.0%
Papua New Guinea	100.0%	0.0%
Paraguay	0.0%	100.0%
Peru	0.0%	86.7%
Philippines	0.0%	98.5%
Poland	0.0%	82.0%
Portugal	2.0%	98.0%

	Virginia	Blended
Qatar	33.1%	66.9%
Reunion	31.2%	67.7%
Romania	2.0%	97.0%
Russia	1.4%	98.6%
Rwanda	79.9%	20.1%
Saudi Arabia	26.6%	73.2%
Senegal	32.9%	66.3%
Serbia	2.1%	85.7%
Seychelles	93.7%	6.3%
Sierra Leone	99.7%	0.3%
Singapore	16.6%	79.4%
Slovak Republic	1.0%	99.0%
Slovenia	2.0%	92.0%
Somalia	100.0%	0.0%
South Africa	76.0%	24.0%
Spain Mainland	4.0%	87.0%
Sri Lanka	100.0%	0.0%
Sudan	60.0%	40.0%
Swaziland	90.3%	1.7%
Sweden	0.1%	99.9%
Switzerland	0.8%	88.6%
Syria	0.0%	100.0%
Tadjikistan	0.0%	95.0%
Taiwan	55.4%	44.6%
Tanzania	99.6%	0.4%
Thailand	0.6%	99.4%
Togo	99.3%	0.7%
Tunisia	0.0%	68.3%
Turkey	0.0%	93.4%
Turkish Cyprus	32.7%	67.2%
Turkmenistan	0.1%	85.6%
UAE	29.6%	70.4%
Uganda	67.0%	33.0%
Ukraine	0.1%	90.6%
United Kingdom	91.0%	9.0%
Uruguay	0.0%	99.9%
Uzbekistan	6.0%	45.3%
Venezuela	0.1%	99.9%
Vietnam	99.0%	1.0%
Yemen	97.2%	2.8%
Zambia	99.6%	0.4%
Zimbabwe	96.0%	4.0%