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10 years of surveys of young smokers

After ten years of supporting hundreds of surveys of young people, and with responses from a third of a million of them recorded in our data banks, we feel entitled to take a longer view than is possible from a single year's data.

We carried out a shorter-term exercise in 1988, based on about 70,000 responses received since 1983, and published the results under the heading *Teenage smoking: are the levels falling at last?* (Balding 1988).

This observation was based on the steady overall fall in the percentage of young people between the ages of 11 and 16 that could be described as 'smokers' according to their answers to three separate questions contained in early versions 8–11 of the Health Related Behaviour

Questionnaire.

In Figure 1, below, we display results from four successive years of cumulative data (1985–1988) from surveys from different parts of the UK in each year. The results displayed are for boys, where the change is most marked; it is less clear in the data for girls. These same four rows are presented again in Figure 2.

It should be noted that each successive year's accumulated data is derived from a different population and is 'accidental', in that it is outside the control of the Schools Health Education Unit. Recent discoveries from a planned cohort study in process in Yorkshire indicate that, for many behaviours at least, results in one region are a good predictor of results elsewhere in the country (Balding 1994, Balding 1995).

Two of the questions from versions 8–11, slightly modified, have been retained through subsequent updates up to the current 17th version, and a 10-year analysis of one of them, *How many cigarettes have you smoked in the last 7 days?*, is presented in Figure 2. This gives '3D' plots for every available year group from 7 to 11, over the decade 1985–1994, that responded that they had smoked at least one cigarette in the last 7 days. It represents the results of well over a thousand surveys.

These series of columns tell a different story according to the way they are 'read'.

1. *Reading across.* Going from left to right, the changing heights of the columns show how the percentage of smokers in each year group survey sample has changed from one year to the next.

2. *Reading up.* This shows the changing smoking levels from one year group to the next within each calendar year of the decade sur-

Fig. 1. Smoking levels, 1985–1988, for boys in Years 7–11. This data, which shows the percentage that smoked at least one cigarette during the previous week, is taken from annual Health Related Behaviour Questionnaire survey summaries.

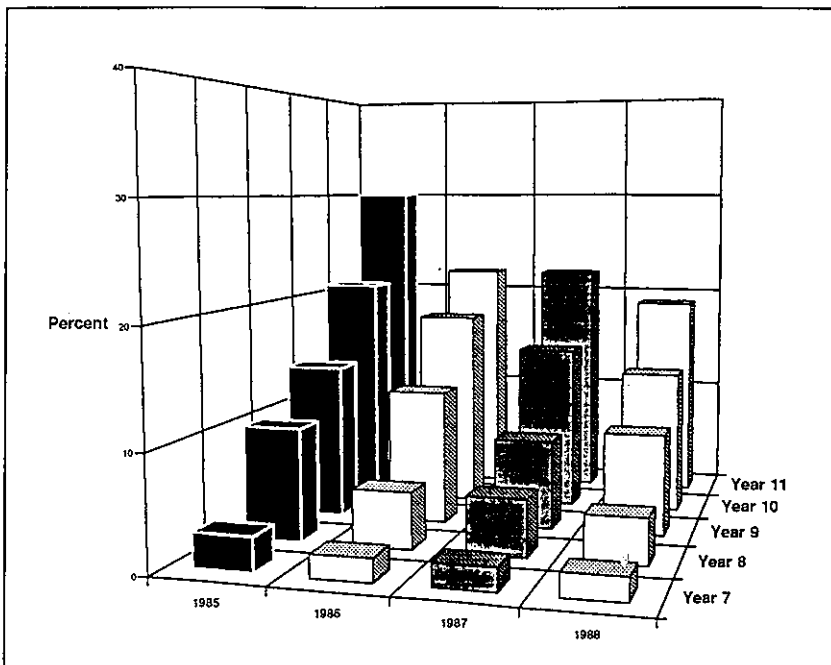
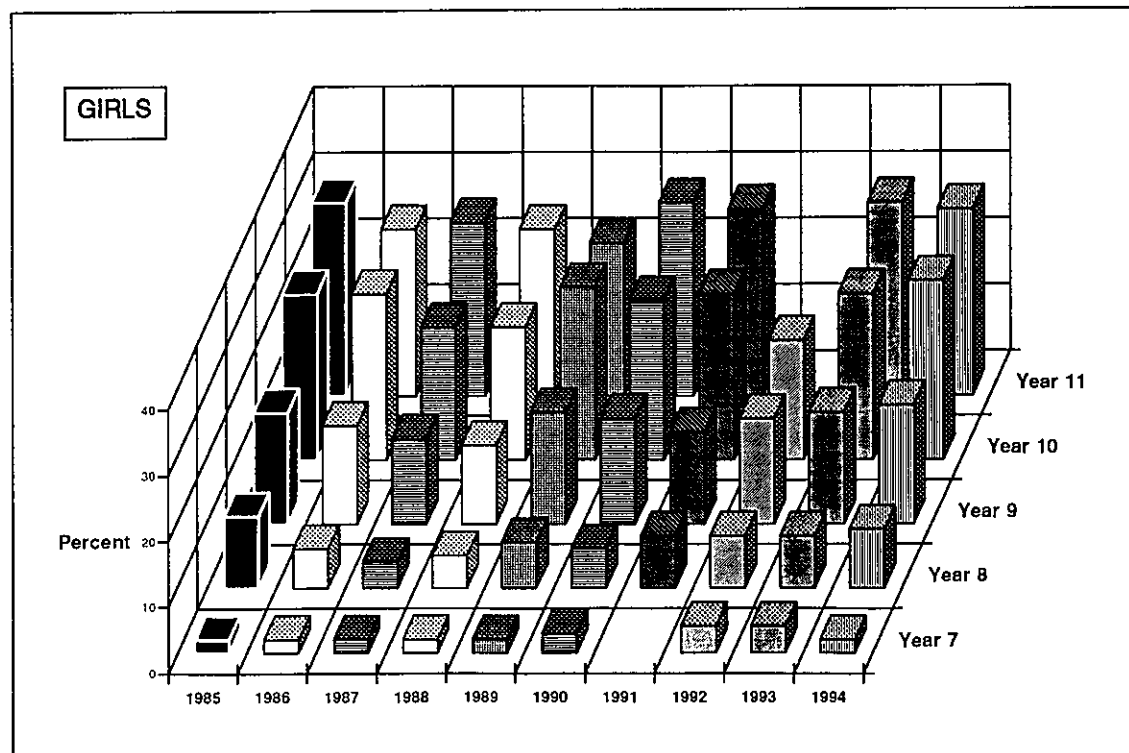
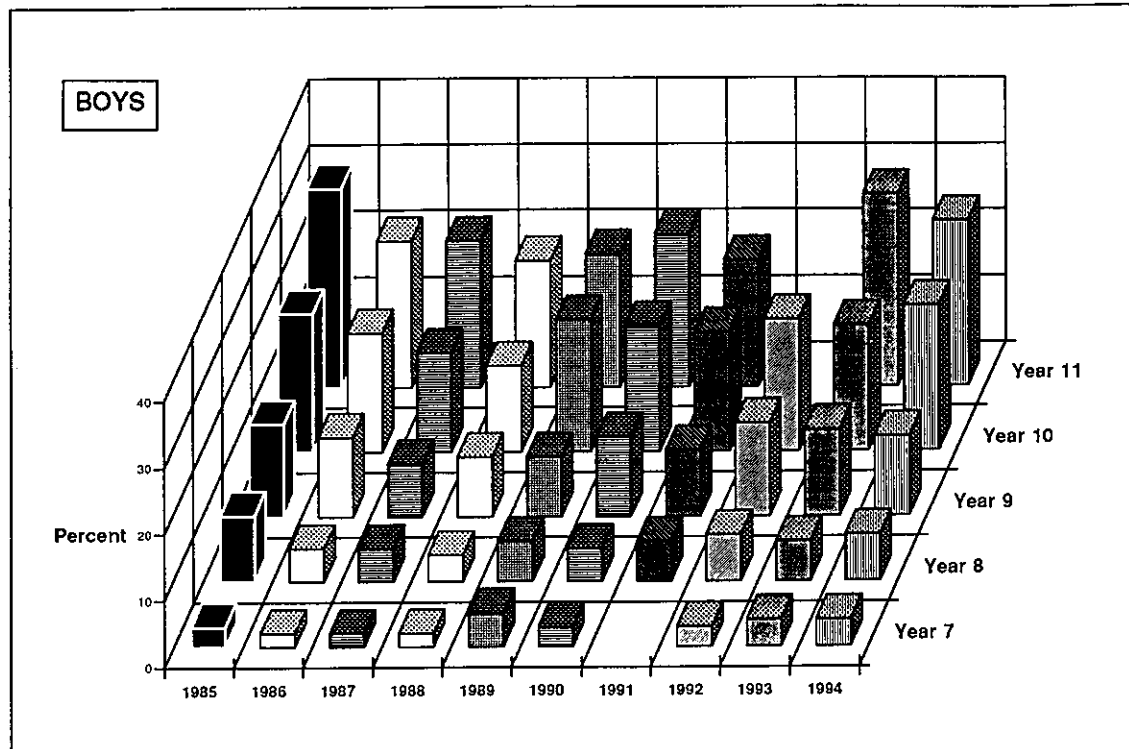


Fig. 2. Smoking levels, 1985-1994, for boys and girls in Years 7 to 11. This data, which shows the percentage that smoked at least one cigarette during the previous week, is taken from annual Health Related Behaviour Questionnaire survey summaries.



veyed.

3. *Reading along the diagonals.* For example, proceeding from Year 7 in 1985 to Year 8 in 1986, ending with Year 11 in 1989, will track the growing percentage of smokers among young people born in the same year (in this example,

1974).

The higher percentages of smoking girls than boys in the older age groups are obvious when the two diagrams are compared.

The decline in smoking between 1985 and 1988, indicated by the boys' data in Figure 1, is

Table 1. 1994 responses to the question *How many cigarettes have you smoked in the last 7 days?*

Responses	Year 7		Year 8		Year 9		Year 10		Year 11	
	B	G	B	G	B	G	B	G	B	G
None	96.4	97.9	92.9	90.8	88.1	82.1	78.0	73.0	74.7	71.7
1-10 cigarettes	2.9	2.1	4.9	6.2	5.3	9.0	8.0	10.4	7.1	6.7
11-15 cigarettes	0.2	0.0	0.4	0.5	0.8	1.2	1.2	1.6	1.1	1.7
16-25 cigarettes	0.2	0.0	0.7	1.0	1.4	2.2	2.8	3.9	2.8	3.6
26-35 cigarettes	0.2	0.0	0.4	0.6	1.0	1.5	2.0	2.9	1.8	2.7
36-45 cigarettes	0.0	0.0	0.2	0.4	0.8	1.7	2.1	2.5	1.9	3.4
46-55 cigarettes	0.0	0.0	0.2	0.1	0.5	0.7	1.3	1.6	2.1	2.6
56-65 cigarettes	0.0	0.0	0.1	0.2	0.5	0.3	1.1	1.0	1.8	1.9
65+ cigarettes	0.2	0.0	0.3	0.3	1.5	1.3	3.5	3.2	6.7	5.8
% of 'smokers'	3.6	2.1	7.1	9.2	11.9	17.9	22.0	27.0	25.3	28.3
Valid responses	581	613	9282	8894	3856	3853	7917	7534	2764	2589

Fig. 3. The percentage of 'non-smokers' in the 1994 data, from Years 7 to 11.

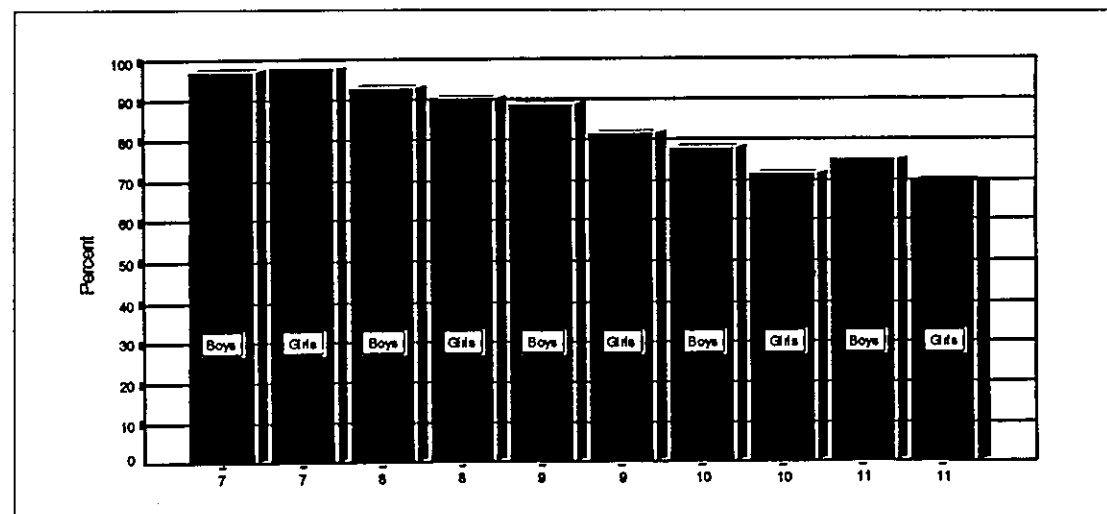


Table 2. 1994 responses to a question about smoking intentions.

Responses	Year 7		Year 8		Year 9		Year 10		Year 11	
	B	G	B	G	B	G	B	G	B	G
Don't smoke and never will	82.7	80.9	79.1	73.0	77.9	67.9	67.3	59.8	67.3	62.1
Don't smoke but may do	14.9	17.2	14.4	17.6	11.2	13.9	10.9	11.8	7.9	7.9
Smoke, but like to give up	1.4	1.5	4.8	7.0	7.6	14.3	15.9	21.2	17.7	23.2
Smoke, don't want to give up	1.0	0.3	1.6	2.4	3.3	4.0	5.8	7.1	7.1	6.8
Valid responses	577	598	9160	8770	3808	3800	7828	7432	2730	2554

less clear for the girls. Year 11 girls do not show such a decline, and the low Year 7 smoking levels make observation difficult.

A calculation of average percentage of smokers, 1985-1988 and 1989-1994, produces the following figures.

Year	BOYS		GIRLS	
	85-88	89-94	85-88	89-94
7	2.2	3.8	2.0	3.3
8	4.8	6.4	5.5	8.0
9	10.4	11.7	13.9	16.5

In every case, the percentage of young smokers in surveys supported by the Unit has been higher in the post-1988 period.

Consumption of cigarettes

From Table 1 it appears that although fewer boys than girls in the older age groups smoke, there are as many heavy smokers amongst both

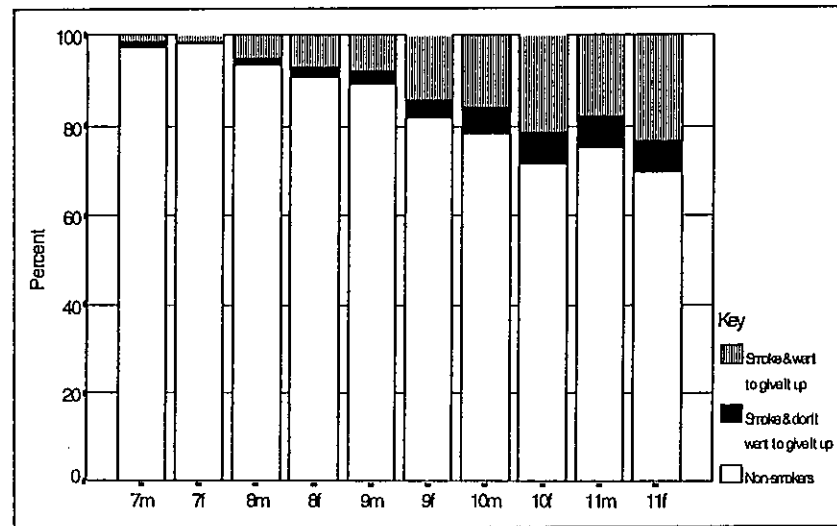


Fig. 4. 'The thin black line' shows those smokers within the 1994 data who do not want to give up. The top (grey) group smoke and would like to give up.

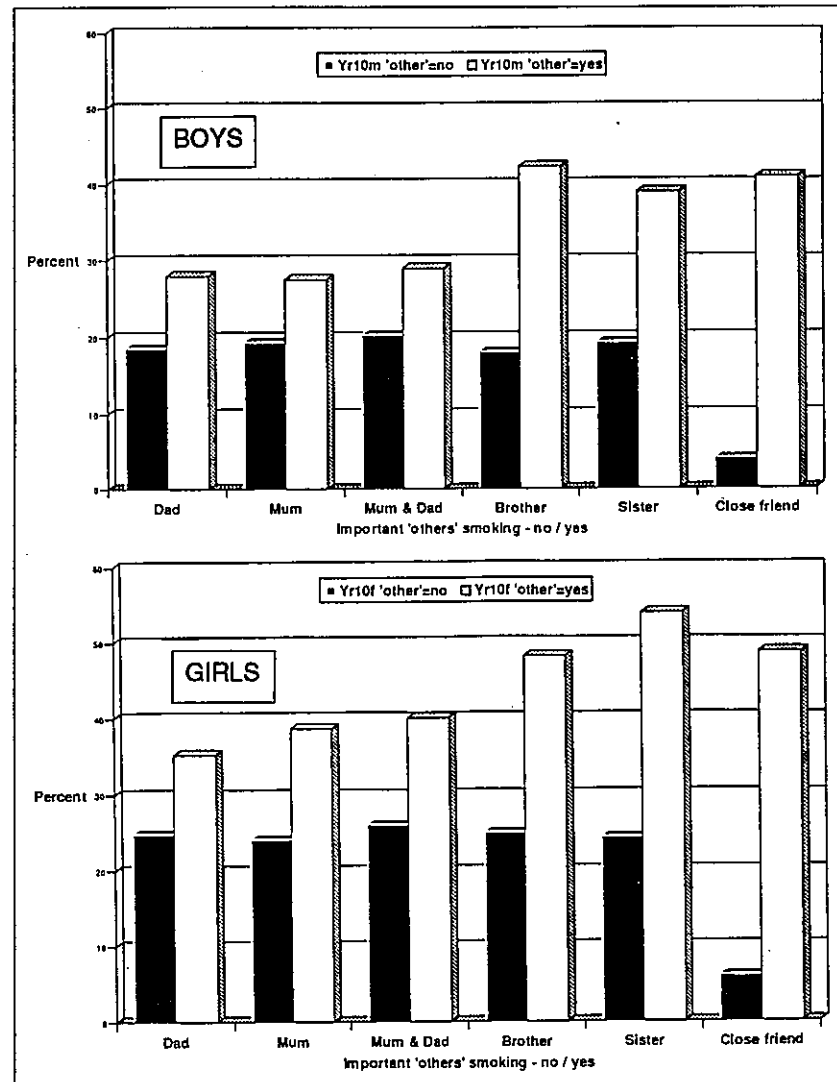


Fig. 5. Smoking mentors in the 1994 data. The black column indicates that the other person is a non-smoker; the white column that he or she is a smoker.

sexes. We calculate that the Year 10 sample of 7534 girls included 2034 that smoked, and between them these smokers inhaled the smoke from 56,550 cigarettes in one week (and doubtless shared the opportunity with many others).

'The thin black line'

Although smokers are always in a minority, it is usual to have at least tried smoking by Year 11.

We regard those who say that they smoke *occasionally or regularly* as 'smokers'. In Table 1 we have accumulated the total of 'smokers' in italics.

We have chosen to display (see Figure 3) the complementary percentages to the 'smokers'. This shows that the great majority of young people do not smoke, including sixth-formers in other data collected by us.

Turning now to Table 2, we see that an ever-decreasing number across the year groups declare that they *don't smoke and never will*. Good intentions are seen not to be enough!

However, the groups signalling that they *would like to give up* present a challenge, as do those who say they *might smoke in the future*.

Most 'smokers' declare that they *would like to give up*, and we need to consider what would help them do this, assuming that this really does express their desire.

To put the situation in perspective, Figure 4 shows how each sex and year group in the 1994 sample can be divided into non-smokers, smokers that would like to give up, and smokers that do not want to give up.

Determined smokers usually form a tiny minority. Their largest contribution amounts to only 7% of the year group. They form a 'thin black line' in Figure 4.

What makes smokers smoke?

It would appear from Figure 5 that:

- (a) If either mother or father smokes, similar and enhanced percentages of sons smoke.
- (b) More daughters smoke if mother is the only parental smoker than if father is (mother smoking has more effect on girls than father smoking, and there is effectively no difference for boys).
- (c) Where both mother and father smoke, even more daughters smoke. To a lesser extent, sons do so too.
- (d) A brother or a sister smoking is related to a very large difference in percentages — ap-

Table 3. The number of people living in the home that smoke

Responses	Year 7		Year 8		Year 9		Year 10		Year 11	
	B	G	B	G	B	G	B	G	B	G
None	51.6	53.6	54.5	52.6	49.5	45.6	51.5	48.4	45.6	42.5
One	25.9	26.6	24.2	24.0	25.3	27.4	23.7	24.3	25.9	25.3
Two	15.8	14.7	14.8	15.1	17.0	16.8	15.3	16.4	17.2	18.1
Three or more	6.8	5.0	6.6	8.2	8.2	10.2	9.5	11.9	11.4	14.1
Valid responses	564	593	9103	8756	3795	3818	7835	7475	2746	2581

Fig. 6. The percentage of Year 10 smokers' households with people that smoke at home.

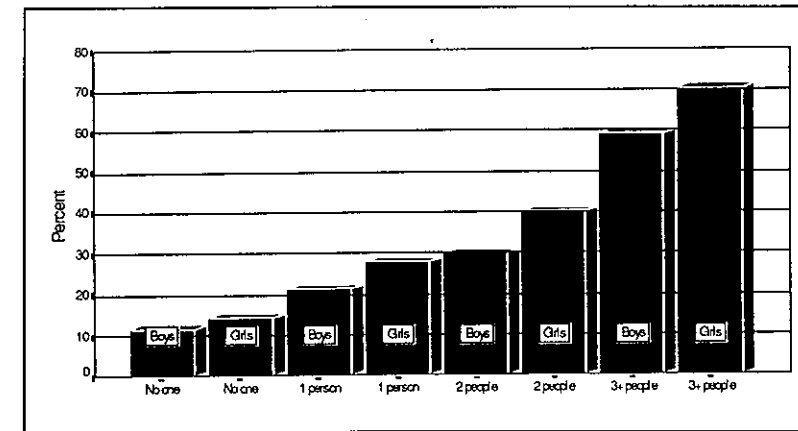
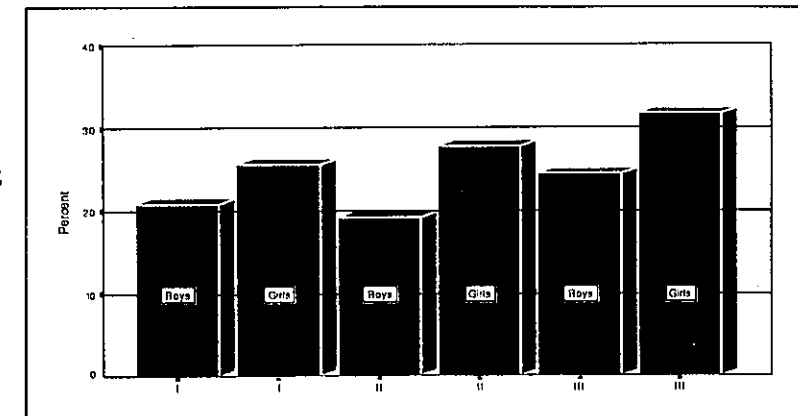


Fig. 7. The percentage of Year 10 smokers within each family newspaper readership group. I = broadsheet, e.g. Guardian; II = tabloid, e.g. Mail; III = popular tabloid, e.g. Sun.



proximately a doubling is noted.

(e) The influence of a close friend shows some huge differences. We hear so much about peer pressure, and we note immediately the large percentages of boys and girls that smoke if a close friend smokes. However, we also note that these large percentages are actually smaller than those for

boys when a brother smokes, and girls when a sister smokes.

What causes these differences between smoking or not smoking according to whether close friends do or do not smoke? Two alternative explanations are offered.

The peer-pressure model. You do what your

close friends do. If they happen to smoke, you join in.

The environment model. You seek the company of those people with behaviours that make you feel comfortable. Smokers seek out other smokers; non-smokers select other non-smokers.

Table 3 looks at the total number of people smoking in the home. This information is of interest to doctors, who may be concerned about passive smoking. The top line shows that there are no smokers in about half the homes. The increase in the number of smokers in the homes of older children would be consistent with some of them being smokers too and being included in this total.

Figure 6 shows the number of people that smoke in

the homes of Year 10 smokers. There is a very clear trend for young smokers to come from smoky households — 70% of the Year 10 girls in households where three or more people smoke are themselves smokers, and will be included in the total.

Teachers, who may be interested to know about family models, also need to be sensitive to the necessity of avoiding creating conflict through 'smoking' lessons.

Smoking and newspaper readership group

We have referred elsewhere to the fact that different groups of newspapers tend to be read

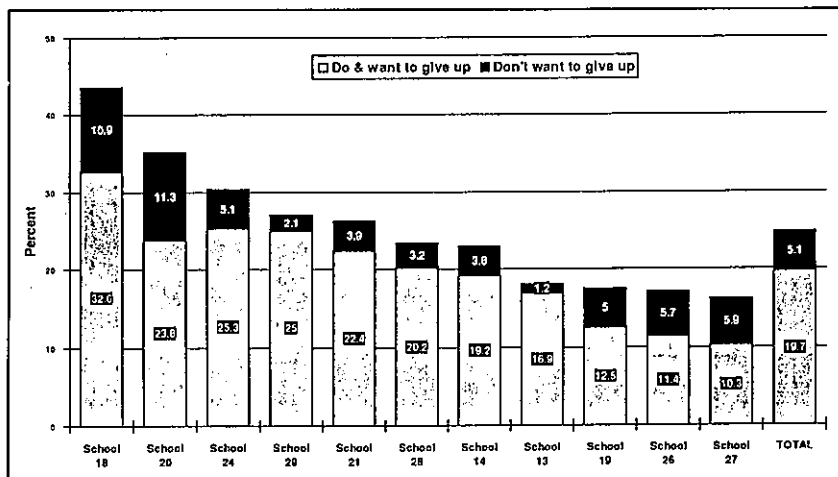


Fig. 8. Year 9 female smokers in 11 schools within one DHA. The schools are arranged in decreasing order of the percentage of girls that had smoked at least one cigarette during the previous week.

by different social classes (Balding 1995a, Tunstall 1982). They range from broadsheet (Group I) to popular tabloid (Group III). This classification offers a way of examining the degree to which young people's home background affects their smoking behaviour.

Figure 7 shows that the greatest percentage of Year 10 'smokers' (in this case those recording that they smoked at least one cigarette during the last 7 days) come from a Group III household. The social grouping effect is particularly tidy for the girls.

Local variations

In the Introduction to *Young People in 1994* we draw attention to a deliberate cohort study carried out in Yorkshire, in which we comment on the comparability of results between large samples gathered in different parts of the country in the same year.

At the same time, we should mention the wide variation sometimes found between communities (wards) and between schools in the same locality. Figure 8 shows the large variations found between smoking levels in Year 9 girls in 11 schools in one DHA. In these surveys it is the whole population of the year group present on the day the Health Related Behaviour Questionnaire was administered that has responded, not just a sample from it.

We have arranged the schools in order of decreasing percentage of female smokers. Typically, at this age, more girls than boys are 'smokers', and in these surveys within 11 schools, amongst the total populations present, 24.6% of girls were 'smokers' compared with 19.5% of boys.

At this age (13–14 years) it is often observed that the girls are mixing socially with older age-

group boys, where the percentage of boy smokers will be higher.

Clearly, from the display in Figure 8, there are a lot of girls attending schools 18 and 20 that smoke and also select the option that *they smoke and do not want to give it up*. In schools 24 and 29 there are fewer female smokers and noticeably larger proportions of them signalling that *they smoke but would like to give it up*.

The specific detail of these findings, fed back to individual schools, informs local action. The overview of the picture in all 11 schools does not raise this level of interest, purpose, or ownership.

Within any school, amongst the teachers, there is also an awareness about the characteristics of particular year groups. Teachers witness the tracks of 'good' and 'bad' year groups from entry into the school until they leave. Similarly, within a year group, individual classes or tutor groups have a character that informs the way teachers will approach them. This local knowledge is so important in designing education or intervention programmes.

References

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We are planning some future issues around the topics of . . .

**ASPIRATIONS & ENVIRONMENT
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Please write or telephone the Editor (01392 264720) if you would like to put pen to paper on the subject of young people (primary as well as secondary) and any of these topics.