



# The Liverpool Longitudinal Study on Smoking - the primary school phase

## Executive Summary

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## *The LLSS Retrospective Review*

The Liverpool Longitudinal Study on Smoking (LLSS) is a unique research project, set up to undertake a comprehensive study into the experiences of children and smoking between the ages of 4 and 11. It was developed with a remit to identify and explain children's attitudes towards and their knowledge of smoking, monitor their smoking behaviours, and track how these change over time. Existing research, which has focussed mainly on the period of adolescence, has identified who smokes, when and where. The aim of the LLSS was to answer the most crucial question of all, why do young people smoke?

### *Tobacco and the Young: Key facts*

- ❖ 450 children start smoking in the UK every day (Royal College of Physicians, 1992; Charlton, 1996)
- ❖ In the UK in 2003 18% of boys and 26% of girls were regular smokers at the age of 15 (Boreham and Blenkinsop, 2004).
- ❖ Over the past twenty years the problem of adolescent smoking has been increasingly recognised in academic and policy fields, and by practitioners.
- ❖ However, focus has tended to be on events between the ages of 11 and 15, when the pupils are in secondary school, which has overlooked key periods in the development of attitudes, beliefs and behaviour towards smokers and smoking - early childhood and pre-adolescence.

### *The LLSS: Why we did it*

While smoking is rare among primary school children, the process of becoming a smoker actually begins in early childhood. By identifying children's ideas about and behaviour towards smoking in this early phase, it is possible to develop an understanding of the crucial factors involved in the process of becoming an adolescent smoker. Moreover, it is information from children themselves on how they perceive smoking that provides the best evidence base for designing smoking prevention programmes. Understanding what children think is a central principle of practising health promotion; health messages need to be based on what children know and understand about smoking if programmes are to be meaningful and effective.

### *The LLSS: How we did it*

The Study has used a unique triangulated methodology, employing a range of qualitative and quantitative data collection methods to explore the same issue:

- Questionnaires
- Draw and Write Exercise
- Focus Groups,
- One-to-one interviews with case-study children
- Social Mapping

Furthermore it adopted a child-centred approach to the research, which has ensured the direct participation of the children in the process, most importantly allowing them to voice their own thoughts, perceptions and views. Through this, the LLSS has been able to ground statistical findings on smoking, on children's own attitudes to smoking and their smoking behaviour, producing a unique in-depth picture of the social and cultural contexts that influence smoking uptake by children.

The LLSS tracked a birth cohort of 250 children through 6 primary schools across Liverpool, from Reception Class to Year 6. The schools, which reflected the range of socio-economic conditions that exist across the city,

were visited annually by a researcher who carried out the data collection with the pupils.

### *The LLSS: What we found*

#### *The smoking behaviour of the Liverpool group*

- ❖ At the end of primary school, at age 11, 27% of the sample reported that they had tried smoking.
- ❖ In every year of primary school except at the age of 7-8, more boys than girls had smoked.
- ❖ The majority of experimentation with smoking occurred in the last 3 years of primary school, which cover ages 9 - 11, with the latter two years proving to be the most critical time for children trying for the first time.
- ❖ Only in the final year of school did the number of girls as first time triers outweigh the number of boys.
- ❖ Those who had tried smoking were more likely to live in wards with lower socio-economic conditions.
- ❖ At age 8-9 the most important influence on children starting smoking was if they had smoking friends, which is slightly earlier during pre-adolescence than is currently thought.
- ❖ By age 11, as the children are leaving to attend secondary school the key factor was having parents and siblings that smoke.

#### *Children's beliefs about why young people smoke*

The children's views about why young people smoke changed markedly over the course of the primary school phase.

- ❖ In the Early Years, ages 4-8 the most important factor was the desire to, or pleasure of, smoking.
- ❖ After this age children increasingly believed that copying friends and parents was the most important reason for smoking.
- ❖ By the end of primary school at age 11, children believed the most important motivation for smokers was that of self-image.

### *Thoughts on peer pressure*

Looking at the cohort as a whole, peer pressure as a reason to start smoking was mentioned as a factor throughout all of the school years, but as the children got older they gave more detailed descriptions of what they considered such pressure to be.

- ❖ From the age of 8 being part of a group was highlighted as important.
- ❖ From the age of 9 their explanations became clearer, indicating that this could take a range of forms from friendly verbal persuasion to physically being forced to smoke.
- ❖ By the end of primary school the children's comments often reflected their own fear of future pressure or bullying to smoke when they entered secondary school.

However, these broader findings masked a crucial feature behind the reality of smoking uptake. Of the children who had actually tried smoking in the cohort, only two gave 'pressure' as their reason for trying. Instead curiosity was by far the main motivation.

### *Understanding of the health implications of smoking*

Over the course of primary school the children built up a significant amount of knowledge of the impact smoking has on health:

- ❖ In the early stages, age 4-5, children frequently commented that people got sick from smoking and even mentioned that smoking caused people to die in the long term.

- ❖ As they got older their descriptions of health implications became more detailed. Until the age of 8 children mostly spoke about external changes happening to the smoker, yellow fingers and teeth for example.
- ❖ In the final three years of school this changed to citing internal changes happening to a smoker, usually to do with damage to the lungs and heart. From the age of 6-7 they began to talk about people getting cancer, and references to cancer increased every year.
- ❖ Although no child was able to explain what cancer actually was, when asked about health impacts as they got older they cited specific types of cancer that smoking caused, notably lung and throat cancer.
- ❖ Many of the children drew on personal experiences of people they had known suffering poor health or even dying from a smoking-related illness.

### *Views on passive smoking*

From the age of 4-5 upwards the children were very aware of its occurrence, particularly in the home. Their comments showed that:

- ❖ They are able to articulately describe how they feel when faced with a smoky environment, and they displayed strongly negative feelings towards being exposed to smoke.
- ❖ As they got older they became increasingly concerned that their own health, along with that of the smoker, would be affected by inhaling smoke.
- ❖ From Reception Class upwards a high percentage of children each year stated that they were willing to ask a smoker to stop smoking in front of them.
- ❖ As they got older different strategies addressing the person who was causing the smoky environment emerged, including asking the smoker why they engage in the habit, to giving the adult health advice on the impact of smoking.

- ❖ While many children suggested that they were prepared to speak to the smoker, only a very small minority would physically relocate themselves away from them.
- ❖ Significantly, it was those attending schools in areas with the least preferable socio-economic conditions that most frequently cited specific problems with their own health.
- ❖ However, these children were least likely to question a smoker about their actions or offer health advice, which perhaps suggests that while they may be the group most exposed to passive smoking, they progressively become used to people smoking around them, and are more accepting of the behaviour.

### *Their belief that smoking is an adult habit*

- ❖ Over 95% of the children in all years felt that smoking was a more acceptable behaviour for adults than for children.
- ❖ The most frequent justification for this through the whole of primary school was to do with adults simply having bigger bodies and so are better able to cope with the smoke.
- ❖ In later years, from age 9 onwards children also felt it was more acceptable because adults had already “lived their lives”.
- ❖ Significantly, while the children themselves held such strong negative views about smokers and smoking, those who had smoking parents were never critical of them.
- ❖ While they considered people in general to be “stupid” to engage in the habit, in terms of their parents they simply rationalised their behaviour, for example:
  - smoking as a coping mechanism
  - problems of quitting smoking because of addiction to nicotine
  - rational choice - simply choosing to smoke because they wanted to

### *Child smokers: Influences on uptake*

- ❖ Quantitative findings from the LLSS have identified the key role of friends from a relatively early age, 8 years, in the uptake of smoking by children.
- ❖ As the children approach adolescence, age 10-11, the influence of the home environment becomes highly significant too. At this time the children who have smoking parents are by far the most likely to try smoking.
- ❖ It is also clear that those children living in areas with lower socio-economic conditions are the most likely to try smoking during primary school.

### *Knowledge versus Action: A major contradiction*

Beyond this, however, talking directly to the children has revealed critical issues beneath the broad statistical picture. It is clear children are very aware of smoking from the earliest age in the study.

- ❖ From age 4 upwards over 95% of the children displayed strongly negative attitudes towards smokers and smoking, and are clearly unhappy when in a smoky environment.
- ❖ As they grew up they have effectively taken on board health education messages about the harmfulness of smoking that have come from parents themselves and the schools, and through these built up an increasingly detailed knowledge of the impact of smoking on health, and on the problems of addiction and cessation.
- ❖ Many were also able to draw on their experiences of seeing someone ill with or die from a smoking related disease.

- ❖ This education and experience has re-enforced the negativity they articulated about smoking, and as the children left primary school less than 1% of them said that they intended to smoke in the future.
- ❖ However, national statistics indicate that many of these will go on to become smokers in adolescence

### *Approaching adolescence*

- ❖ As the children left primary school 55% of them lived in a household with at least one smoker.
- ❖ Those that had tried smoking were three times more likely to have known someone suffer from or die from a smoking related disease
- ❖ For the majority of triers, having smoking parents/siblings was a significant factor in their smoking behaviour.
- ❖ For these children smoking had simply been a part of their lives for as long as they could remember.

The children in the cohort clearly know smoking has a detrimental impact on people in many ways, yet they see their parents, and frequently other relatives, doing it and so rationalise out their behaviour because they do not see them as “stupid” people. Crucially for those that had tried smoking curiosity was the main reason they have tried, and it is not unreasonable to infer that they are looking to explore experiencing something that has surrounded them all their life, however harmful they know it to be.

### *What can we do about it?*

Findings from the primary school phase of the LSSS have important implications for addressing the problem of young people smoking.

- ❖ They indicate that interventions based around health education are clearly highly successful in increasing awareness and understanding of the impacts of smoking, but significantly less so in preventing children and adolescents from taking it up.

- ❖ Furthermore, those focussing on addressing 'peer pressure' may also be less effective in tackling the problem, with this not appearing to be a significant reason why children do actually experiment with smoking.

Instead:

- ❖ Focussing more on the environment that children live in may well be a better way of addressing the issue.
- ❖ The influence of parents cannot be under-estimated, and targeting this group could prove crucial to the success of reducing the rate of young people smoking.
- ❖ The socio-economic differential also cannot be ignored, with those children from lower income households more likely to have at least one parent that smokes, and more likely to start smoking themselves.

Whatever the form such interventions take it is clear from this research that children are aware of and develop an understanding about smoking from a very early age. Most significantly even before they reach Reception Class they are exposed to influences that will affect their own smoking behaviour. Smoking need not, and should not, be a taboo subject for pre-adolescent and even early years children, their everyday experiences have already introduced them to it.

### *The LLSS: Adolescence and beyond*

Building on the work conducted during primary school, the LLSS has continued to track the original group through secondary school.

Findings showed that in 2004 at age 14:

- 13% were regular smokers
- 50% of them had tried smoking, a rate much higher than the national average

We have already found that there is a huge difference between what the children know and think, and how they actually behave. What is becoming increasingly clear through the study is that the issue of context, how the children live their day-to-day lives, is crucial in understanding the uptake of smoking both before and during adolescence.

The project will carry on following the pupils until the end of compulsory education in 2006. This unique longitudinal work will produce one of the most comprehensive studies on child and adolescent smoking in the world, which will inform the development of both tobacco control policy and practice in the future.