It is clear from research that many people see the personal benefits of smoking as outweighing the (long term) physical dangers associated with tobacco use.

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Health warnings on cigarette packets: perceiving the risk

Smokers do not lack the intelligence to understand the implications of warnings: they interpret the information and filter out the perception of risk.

Cigarettes are harmful and the health-care consequences of long-term smoking are expensive. The evidence is well-established[1] and does not really require further discussion in this context. The health risks and the health-care costs, however, provide a backdrop to the creation of cigarette smoking as a social problem that warrants government intervention and, in the UK, government action to reduce the prevalence of smoking has focused on six main areas:

· **smoking cessation.** Those who smoke have been provided with support to quit the habit, much of it through the NHS Stop Smoking Services;

· **tobacco advertising.** It is now illegal to advertise tobacco in newspapers, magazines or on billboards, and all tobacco sponsorship will cease before August 2005. Point of sale advertising is soon to be restricted;

· **secondhand smoke.** There has been encouragement for increasing the number of smoke-free environments in the work place and, albeit less successfully, in leisure environments such as pubs and restaurants;

· **health education and media campaigns.** These have included hard-hitting TV campaigns highlighting the dangers of second-hand smoke and emphasizing the health hazards of smoking;

· **taxation and smuggling.** With higher prices seen as a deterrent to smoking, government policies have included raising tax on cigarettes (to make them the most expensive in the EU) and preventing the growth in smuggling (that has seen 18% of cigarettes and 50% of rolling tobacco in the UK being smuggled into the UK in recent years);

· **labelling and regulation.** New maximum levels for nicotine, tar and carbon monoxide have been set for cigarettes. There have also been bigger health warnings added to tobacco packaging - with the prospect in the foreseeable future of following the lead of Canada, Brazil and Thailand by adding graphic picture warnings.

These raft of measures can be seen as a political statement of intent. The measures constitute a highly visible message on behalf of the government to non-smokers as well as smokers, to the health lobby as well as manufacturers, to the public as well as politicians, that the problem of smoking is being taking seriously and that strong measures are being taken to address the issue. The measures also reinforce a moral climate in which smoking is seen as 'a bad thing'. There is a clear underlying assumption that it is not good to smoke. Smokers ought to be strong-willed and give up the evil habit in order to protect their own health and the health of those around them. Manufacturers should face up to the consequences of selling an addictive 'poison'.

Nowhere are these messages better captured than in the regulations governing the labelling of cigarette packets. Labelling regulations provide a highly visible component of the overall policy in the sense that their implementation is very obvious and apparent to all those who smoke cigarettes and to those who see them for sale in shops. They confront the buyer with a clear statement that smoking is a bad thing because it causes harm to the smoker and to other people as well. And it imposes on cigarette manufacturers an obligation to warn their customers about the dangers of the product with a view to deterring them from buying the goods.

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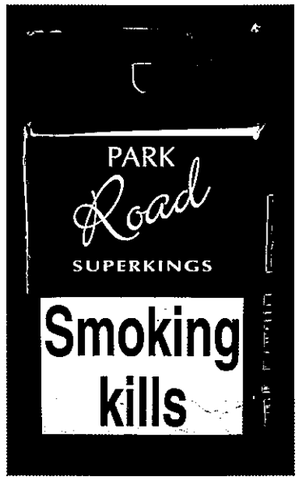
The regulations

Under current regulations dating from the start of 2003, cigarette packets sold in the UK must carry hard-hitting health warnings. In accord with a European Union directive, all cigarette packets must carry warnings that cover 30% of the front and 40% of the back of the packet.[2] To accentuate the warnings, the words must appear in boxes with thick, black borders and the text must conform to a stipulated size, style and colour (black text on white background).

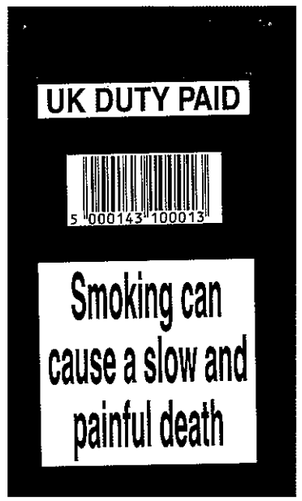
This is the first time in the UK that manufacturers have been legally obliged to put such health warnings on tobacco products. As such, the regulation represents a significant break-through for the health promotion lobby.

As far back as the early 1970s the UK government had considered introducing legislation to force tobacco advertisements to include explicit health warnings. In the event, however, tobacco companies reached an agreement with the government that avoided any legal obligation to carry health warnings on cigarette packets. Instead, from 1971 the tobacco companies put health warnings on their packaging as part of a voluntary code.

The new warnings themselves are stark. On the front of the packet (see below) there must be one of two warnings: either 'Smoking seriously harms you and others around you' or the blunt message 'Smoking kills'.



On the back of the packaging a more specific and detailed warning must appear (see below).



On a rotation basis, one of 14 health warnings must be displayed. Predominantly, this list contains warnings of the physical dangers for the smoker him/herself:

- Smoking clogs the arteries and causes heart attacks and strokes
- Smoking causes fatal lung cancer
- Smoking may reduce the blood flow and causes impotence
- Smoking causes ageing of the skin
- Smoking can cause a slow and painful death
- Smoking can damage the sperm and decreases fertility
- Smoke contains benzene, nitrosamines, formaldehyde and hydrogen cyanide
- Smokers die younger

The back of packet warnings also include appeals to the smoker based on the harm smoking does to others:

- Smoking when pregnant harms your baby
- Protect children: don't make them breathe your smoke

Some of the health warnings centre on the addictive qualities of nicotine. These involve encouragement to the smoker to give up the habit or avoid getting hooked in the first place (the latter message presumably being targeted at those who have not yet become regular smokers):

- Get help to stop smoking
- Your doctor or your pharmacist can help you stop smoking
- Stopping smoking reduces the risk of fatal heart and lung diseases.
- Smoking is highly addictive, don't start

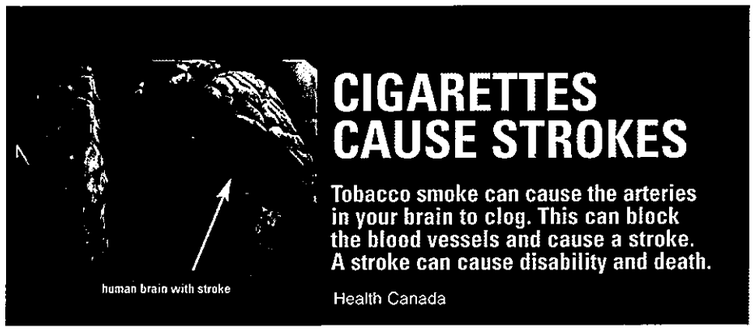
The rationale

The new regulations follow the rationale that by increasing the size of the warnings on the packets, and by presenting the message in a blunt and stark fashion, smokers are confronted with the dangers of their habit each time they light up a cigarette[3]. The more graphic the warning the more impact the message is likely to have.

Psychological research on perceptions of risk provides some support for this rationale. It indicates that people exhibit increased sensitivity to risk where the risk involves the 'dread' factor - something that is really feared as an awful possibility. The same applies for the 'vividness factor' - where the possible nasty outcome is easily visualised in the mind's eye.[4,5]

In specific terms of health warnings on cigarette packets Canadian research has found that 'The larger the health warning message, the more effective it is at encouraging smokers to stop smoking".[6]

Moreover, the evidence from Canadian research suggests that health warnings on cigarette packets are more effective when using emotional warnings, especially when these take the form of message-enhancing pictures.[7] Similar conclusions have been reached in the context of Australian research.[8,9] Based on such research findings Canadian cigarette packets must now carry health warnings that cover 50 per cent of the principal display surface of the packet and include hard-hitting images that ram home the dangers of smoking (see below).



The limitations

Although research evidence provides some grounds for optimism about the impact of bigger warnings, hard-hitting messages and gruesome images, there are also some limiting factors that need to be taken into consideration. Such factors provide an enormous challenge for health education and health promotion. They do not invalidate the use of health warnings on cigarette packets but they do represent a significant barrier to the ultimate impact of such health warnings.

First, the evidence-base provided by the Canadian and Australian research needs to be assessed in terms of what it tells us, and what it does not tell us, about the effectiveness of the warnings. As the researchers recognise, it is difficult to evaluate the impact of health warnings on cigarette packets. It is difficult, for example, to isolate the influence of any new labelling from the welter of other factors that can influence awareness, attitudes and behaviour with regard to smoking. And, even more significantly, there is no simple and straightforward link between awareness of the labelling, new attitudes prompted by having seen the labels, and changes in behaviour resulting from exposure to the labels.[10]

The Canadian and Australian research tended to focus on awareness and attitudes rather than actual changes in smoking behaviour. The implications of this is that while the evidence-base certainly supports the belief that larger and more dramatic warnings catch our attention and make us more aware of the message, what the research cannot do is provide firm grounds for believing that this will be translated into smoking cessation.

Routine exposure to the risk message can actually reduce the impact of the message.

Second, people can be very resilient in the face of 'bad news'. Smokers, like others who are confronted with information they would rather not take on board, have psychological ways of dealing with the matter. Smokers' perceptions of risk (just like everybody else's) are filtered through a number of psychological processes. These processes, as was noted above in relation to the 'dread' and 'vividness' factors, can heighten sensitivity to risk. But psychological processes can also serve to reduce people's awareness of, and sensitivity to, health risks like smoking.

For example, when people are exposed to a risk on a routine and regular basis they tend to perceive that risk as less likely and less harmful than they would if they experienced the risk just occasionally. As Douglas[11] has summarised the available research on this point, 'In very familiar activities there is a tendency to minimize the probability of bad outcomes'. Seeing the health warning 20 times a day, then, might actually de-sensitize the smoker to the risk rather than reinforce the message. In a sense, there are diminishing returns to exposure to the message. So, whereas common-sense might lead us to presume that reading the warning each and every time you reach for a cigarette should be a good way of constantly reinforcing the message, regular exposure to the message might actually have the opposite effect.

"The nasty outcome of smoking might happen to someone else - but not to me".

The perceived risk of smoking can also be psychologically filtered through a sense of personal invulnerability and the attitude that 'it won't happen to me'.[12] The smoker can fully comprehend that there is a real risk attached to the activity of smoking, but mask the impact of that awareness through the feeling that the nasty outcome (cancer, heart disease) is something that will affect someone else; 'not me'. And the longer the smoker does not actually suffer ill health the easier it becomes to convince him/herself that 'it won't happen to me'. Young people, in particular, can use this psychological filter.[13] In the short-term, while they appear to suffer no bad effects, this can stand as reassurance that there is really nothing to worry about. The risk is a long-term possibility, not an immediate certainty. Lung cancer, strokes and heart disease are seen as something that might happen, but not until some time in the (distant) future. This makes the risk seem 'remote', and as such it becomes easier to handle.

Smokers, like others in the popula-

"There's no cast-iron guarantee it'll happen to me - I'll take my chances".

tion, are also aware that health risks can be a matter of probability rather than certainty and this provides another psychological means for smokers to cope with the health warnings on cigarette packets. From the perspective of the individual, there is no absolute certainty about the health risks associated with smoking. Adopting what has been called a 'lay epidemiology' people are aware that by smoking they increase the statistical chances of contracting lung cancer or heart disease, but they are equally aware that this involves a statistical probability.[14] There is no absolute certainty that smoking will cause death and there are always anecdotal examples of people who have smoked all their lives and appear to be healthy in old age that serve to illustrate the point. There is more

chance that a smoker will suffer from things like cancer and heart disease, but there is also the real chance that any individual smoker might not.

"I decide what risks I take - it's my choice".

Risks that happen to you, which are outside your control, are far less acceptable than those which are instigated by you and actively commissioned by you personally.[15]

Putting to the side for one moment the matter of secondary smoking, and bracketing the issue of addiction, smoking can be portrayed as a health risk taken voluntarily by smokers. It is not a risk that is forced upon the smoker - like the risks associated with nuclear contamination or GM crops. It is not like being mugged on the street or being run over by a bus. Smoking is something you do to yourself. It is, in this sense, something over which smokers have control, over which they have responsibility and, for this reason, the risks involved become perceived as far more acceptable.[16]

For some, part of the attraction of smoking stems from the feeling that it is one small area of life over which they have control. For such people, smoking provides an avenue through which they are able to demonstrate that they can exercise some autonomy over their own existence; in a world that constrains them in so many other ways it offers a visible expression of self-determination.[17, 18]

Third, reactions to health risk information depend on how the risk fits in with other aspects of social existence.[19] The risks of smoking, in this respect, get interpreted in relation to group norms and the role that cigarette smoking can play in terms of personal poise and individual identity. The interpretation of the health risk information can take the form of a cost-benefit analysis in which risks to personal health are weighed against a range of personal benefits - benefits not linked directly to physical health.

It is clear from research that for many people, particularly young people, the personal benefits to be gained from smoking outweigh the (long term) physical dangers.[20, 21, 22]

Conclusion

For many years health education has been suspicious about the overall effectiveness of the shock-horror approach to health education.[23] Part of that suspicion comes from the recognition that the perception of a risk can be filtered by the mind. Such psychological filters provide reason to suspect that no matter how large or how lurid the message on a packet of cigarettes, the success at deterring smokers from buying the next pack - from smoking the next cigarette - will never be complete.

This is not to say that such warnings should be abandoned. They are only a failure if health promotion operates on the premise that people will react 'rationally' to a health-risk message by doing everything possible to reduce or eliminate that risk. If, on the other hand, health promotion adopts the more realistic starting premise that people will not necessarily react 'rationally' to risk information then there can be far more modest expectations about what it is feasible to achieve through such messages. To operate on the premise that people will not act 'rationally' to the information is not to suggest that smokers lack the intelligence to understand the implications of the message or the will power to resist temptation. It means, instead, that they interpret the information taking into account the probabilistic nature of risk, the long-term nature of the risk and the social costs of giving up smoking.

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3. This assumes, of course, that the smoker is not sight impaired, is able to read, and can understand the English language in which the message appears.

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