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Chip Pan Fire Prevention

1976-84

INTRODUCTION

In 1981 there were 21 deaths and 1,372 injuries caused by 15,000 chip pan fires. The key question was whether advertising could do anything to reduce this catalogue of personal tragedy, or whether accidents were unavoidable.

This paper sets out to demonstrate that advertising can, and did, affect the number of accidents and thus make a valuable social contribution.

BACKGROUND

The number of deaths and injuries caused by chip pan fires has been mentioned already, however, the scale of the problem is wider than human cost alone.

Chip pan fires are the biggest cause (31%) of domestic fires and result in over 8 million of property damage, and this is only the tip of the iceberg, since the vast majority (95%) of chip pan fires are unreported. Furthermore, chip pan fires represent a cost to the taxpayer in terms of emergency services such as the fire brigade, the National Health Service, and the police.

Against this background of waste and human anguish, the Home Office (HO) and the Central Office of Information (COI) asked the agency to put forward advertising recommendations 'to reduce the death, injury and damage caused by chip pan fires'.

THINKING BEHIND THE ADVERTISING STRATEGY

A reduction in casualties and damage could be achieved *either* by trying to prevent accidents happening in the first place *or* by educating the public about how to contain a fire efficiently and safely so that it does not get out of control because the wrong actions are taken (eg putting water onto it or moving the pan outdoors). Both these routes would achieve the advertising objective: the 'prevention' strategy, by reducing the number of chip pan fires, and the 'containment' strategy, by minimising the injuries and damage caused, albeit without reducing the number of accidents.

Initially we examined the prevention option. The main causes of chip pan fires are *overflowing*, so that oil overflows onto the hotplate or ring when the chips are put in, and *inattentance*, when the oil can reach a flashpoint and self-ignite.

However, there seemed to be two obstacles to encouraging preventive action. The first concerned the nature of accidents. Although deep-frying is extremely common (more than 80% of housewives deep-fry at least monthly), most people have not experienced a chip pan fire.

In fact it is estimated that only about 15% of households have had such a fire, and we assumed that, in general, people do *not* overfill their pans or leave them unattended. Thus an accident can be defined as being an aberration from normal behaviour probably caused by misjudgement or distraction. We were doubtful, initially, whether advertising could stop someone from making such a misjudgement or being distracted in the domestic environment that may have contributed to it, eg being in a hurry to prepare a meal, forgetting to check the level of oil, being called away from the kitchen to answer the door or settle a crying baby.

The second problem concerned people's unwillingness to believe that accidents might happen to them personally. Our own exploratory qualitative research indicated that people recognised that a chip pan was such an obvious hazard from the point of view of burns and scalding, as well as fire, that they claimed to take extreme care anyway. This, allied to the fact that most people have not experienced a chip pan fire, encouraged the belief that accidents happen to 'other' people who are more 'careless' or 'stupid'.

In considering these twin problems – the momentary, aberrational nature of accidents and the unwillingness to take the risk of a fire personally – we concluded that the prevention route did not appear to be particularly promising. On the other hand, we felt that the containment route was more fruitful. Initial qualitative research indicated that there was ignorance about what to do in the event of a fire

and uncertainty about whether, at the moment of danger, the individual would do the 'right' thing, or simply panic. Thus we concluded that the role of advertising should be to inform people about the correct containment procedure and instil confidence in its effectiveness.

However, in reflecting on this proposed strategy, it occurred to us that demonstrating how to cope with a chip pan fire was a possible way to address the prevention issue. Above all, we felt that it could *personalise* the problem in such a way that advice about how to prevent accidents was more likely to be heeded. We believed this for two reasons. First, we felt that showing someone tackling a chip pan fire would raise doubts in the viewers' minds about whether *they* could do this in such an eventuality. By raising this doubt about *their* ability to cope, we felt that advice about how to prevent a fire occurring in the first place would be welcomed. We felt that showing the containment procedure would encourage viewers to want to take more notice of preventative advice in order to avoid the greater of two evils.

The second potential benefit of this strategy lay in the tone of voice in which the advertising could address the target audience. Rather than saying, 'Don't do this because it might cause an accident', advice which might be rejected or ignored for the reasons outlined earlier, we wanted the advertising to say, 'Well, it's happened – unluckily – but here's what to do'. The possibility of the advertising being accusatory, and therefore being rejected, could be replaced by advice which was unmistakably reasonable, helpful and positive.

In effect, we hypothesised that, by turning the problem on its head, we could maximise the potential benefit of the advertising.

Instead of saying:

Don't overfill your chip pan or leave it unattended, because you may cause a fire and possibly injure yourself.

we wanted to say:

Here's what to do if you're unlucky enough to have a chip pan fire; putting it out isn't easy, so why not remember why it happens in the first place.

The advertising model which we postulated can be represented diagrammatically (see Figure 1)

CAMPAIGN DETAILS

TV was the natural choice for both media and creative reasons: it reaches the wide audience of 'all housewives' and it was the logical choice to show the containment procedure with the most dramatic impact. The campaign line encapsulated the strategy:

Fire: If you don't let it start, you won't have to stop it

Two 60 second commercials – 'Inattentance' and 'Overfilling' – were produced, and these have been used since 1976, although in 1982 they were edited to 40 seconds. Both showed the initial cause of the fire and then the actions required to put it out:

- turn off the heat;
- cover the pan with a damp cloth;
- leave the pan to cool down.

The dramatic effect of the commercials was heightened by combining real-time with slow-motion sequences.

TABLE 1: CHIP PAN FIRE ADVERTISING 1976-84

1976	Yorkshire Granada
1977	Granada (reminder)
1979	Central
1982	Harlech Tyne-Tees
1983	TVS Harlech (reminder) Tyne-Tees (reminder)
1984	London

The campaign has appeared on a regional basis in ten areas since 1976, and Table 1 shows the chronology of the advertising. The advertising has always appeared in the period January–March/April and at a national equivalent expenditure level of about 1 million. (Reminder campaigns were about half this level.)

CAMPAIGN RESULTS

Sources

The primary source for evaluating the campaign has been the fire statistics (derived from the reports made by fire brigades on every fire

to which they are called), which are available for the six campaigns between 1976 and 1982, (data for 1983–84 not being available). The fire statistics have been analysed by the HO and the COI, and these behavioural data have been supplemented by two quantitative consumer surveys in 1976 and 1983. The rationale for the methodology and the results of combining statistical behavioural data with consumer attitudes and claimed behaviour have been written about by N Phillips.¹

The results

There are a number of benefits in regional advertising: the ready availability of control areas, the opportunity to experiment with different media and media weights and, with particular reference to this case history, the opportunity to see whether the advertising is working in different areas over time.

The overall results of the campaigns evaluated between 1976 and 1982 are shown in Table 2 and show 'net' declines of between 7 and 25% over a twelve-month period.

There is clear evidence that the advertising has been successful in reducing the number of chip pan fires. The most disappointing result is in the Central area (the Midlands). This is an area with one of the lowest incidences of reported chip pan fires per thousand households in the UK. We cannot explain why this is the case, but it implies that it is likely to be more difficult to produce an effect from a lower base.

Further analysis of the data adds credence to the causal effect of the advertising. As we would anticipate, the advertising is having its maximum effect during and immediately after the campaign.

TABLE 2: YEAR-ON-YEAR PERCENTAGE CHANGE IN REPORTED CHIP PAN FIRES

		Advertised area	Control area	'Net' change
1976	Yorkshire	-20	+1	-21
	Granada	-24	+1	-25
1977	Granada*	-32	0	-32
1979	Central	-2	+5	-7
1982	Harlech	-19	-2	-17
	Tyne-Tees	-19	-2	-17

*Six months only

Source: HO and COI

The pattern of actual fires against forecast in the 1976 campaigns indicates that from about August the effect of the advertising was diminishing before the reminder burst in the Granada area re-depressed the number of fires.

TABLE 3: YEAR-ON-YEAR PERCENTAGE CHANGE IN CHIP PAN FIRES

	During campaign	Next 25 weeks	Next 15 weeks
Harlech	-27	-20	-8
Tyne-Tees	-33	-17	-15
Control	-6	-2	+1

Source: COI

A similar pattern over time was observed in the 1982 areas (see Table 3). Further credence is added to the advertising effect if 'pure' and overlap areas are analysed separately. We would anticipate that the effect would be less in overlap areas because of reduced advertising impact (due to dual or triple ITV tuning). This proved to be the case, as shown in Table 4.

TABLE 4: COMPARISONS OF YEAR-ON-YEAR PERCENTAGE CHANGES IN CHIP PAN FIRES IN 1982

	During campaign	Next 25 weeks	Next 15 weeks	Total 52 weeks
'Pure' areas	-30	-18	-12	-19
Overlap areas	-14	-14	+2	-9

Source: COI

Not only has the advertising produced an effect, but it has generally been cost-effective, because a 12% drop in fires represents an estimated saving of 1 million in property damage alone, excluding the benefits of reducing injuries and deaths and savings to the emergency services.

Moreover, these results have been achieved with increasing cost-efficiency. The Yorkshire campaign had 2,800 housewife TVRs (circa 2 million +) and used the original 60 second commercials; by 1982 the advertising weight had been reduced by over half and 40 second commercials were being used. This represents a saving of over 70%.

In summary, therefore, we believe there is a prima-facie case for the effectiveness of the advertising: different regions over a six-year period have all responded positively. The number of chip pan fires has been reduced, and this decrease translates directly into reductions in casualties and property damage.

The hypothesis that the advertising is effective is supported by further analysis of the data. The pattern of reduction over time and the differences between 'pure' and overlap areas confirm a common-sense view of how the advertising is likely to work: with greatest effect during the campaign and in pure, non-overlap areas.

In addition, it has been possible to improve the efficiency of the campaign by reducing the weight of advertising and the lengths of the commercials with no apparent loss of impact.

ADVERTISING AWARENESS AND RECALL

Our confidence that these decreases were a function of the advertising is heightened by the high levels of awareness recorded. Spontaneous awareness of chip pan fire advertising increased sharply after just one burst and was sustained at very high levels thereafter (Table 5).

TABLE 5: SPONTANEOUS AWARENESS OF CHIP PAN FIRE ADVERTISING 1976

	Pre-campaign %	After first burst %	Post-campaign %
Yorkshire	62	90	96
Lancashire	47	85	90
Control	53	n/a	57

Source: RSL

The pre-campaign levels were caused by, and correlate with, levels of exposure to COI fire fillers (screened at the discretion of the ITV contractors) in 1974–75. They were not shown during the campaign, and recall and prompted awareness measures show that the paid-for advertising was what was remembered. Similarly, high levels of advertising awareness were achieved in 1983, with no evidence of a decline even four weeks after the TV advertising had stopped.

The impact of the advertising is further confirmed by the way the advertising appears to increase the awareness of chip pan fires as a potential kitchen hazard (Table 6).

TABLE 6: SPONTANEOUS FIRST MENTION OF CHIP PAN FIRE AS A DANGER IN THE KITCHEN

	Pre-advertising %	Post-campaign %
Yorkshire	12	28
Granada	18	33
Control	10	17

Source: RSL 1976

Indeed, we are sufficiently confident of the impact and memorability of the advertising to be considering further media experimentation in the future to increase media flexibility and cost-efficiency and also, it is hoped, to reduce or minimise the 'decay' effect noted earlier.

HOW THE ADVERTISING WORKS

In theory, understanding how this campaign works does not matter: the objective of reducing chip pan fires appears to have been achieved. However, understanding can help to improve our confidence that the advertising was effective.

It is tempting to conclude from the fact that reported chip pan fires decreased that advertising prevented fires occurring in the first place. However, it is possible to explain the decrease by the containment theory: more people knew how to cope with and put out a chip pan fire

as a result of the advertising, and therefore did not *need* to contact the fire brigade.

We cannot determine with certainty whether prevention or containment was the more significant, since we would need to know whether unreported fires increased or stayed the same; these have never been monitored because of the large sample sizes required. However, we believe, on the available evidence, that a combination of prevention and containment was responsible for the decrease in the number of reported fires.

There seems to be no doubt that the advertising increased knowledge of the correct containment procedure, as Table 7 shows. Furthermore, housewives' confidence that this technique would work increased to 75% and, equally importantly, incorrect (and dangerous) practices declined.

However, we do not think that increased knowledge of the containment procedure *is* the sole reason for the decrease in the number of reported chip pan fires. Had it been, then we would expect that those fires to which the fire brigade *was* called would be more serious than before. But this did not happen: the brigades did not have to fight a higher proportion of fires, injuries were no more common or severe, and the nature and level of damage caused by fires that were reported did not increase.

Also, we believe that the decay effect observed earlier is more likely to be caused by people forgetting prevention advice than by their forgetting the 'new' information about the correct containment procedure.

Furthermore, we think that the twin 'effect' of advertising may explain the relatively disappointing results in the Central area. We do not know precisely why there should be such a low incidence of reported chip pan fires. Survey data suggest that their knowledge of the 'damp cloth' technique appears to be no better than in other areas (before advertising), so we assume that 'Midlanders' are more careful and have fewer fires. If this is the case, then the prevention advice is less relevant and the observed effect may be only a reflection of the containment component.

In summary, neither containment nor prevention alone seems to explain the reduction in chip pan fires; as a result, we believe that both were important.

TABLE 7: OBSERVED REACTIONS OF RESPONDENTS TACKLING A CHIP PAN FIRE

	Yorkshire		Granada		Control	
	pre	post	pre	post	pre	post
	%	%	%	%	%	%
Turn off heat	68	84	57	80	75	70
Cover with damp cloth	53	74	39	75	40	52
Leave to cool down	42	62	22	47	41	33
Open doors/windows	5	24	5	20	7	3

Source: RSL

CONCLUSION

The purpose of this paper was to demonstrate the effectiveness of advertising in reducing the deaths, injuries and damage caused by chip pan fires. We believe there is clear evidence that advertising achieved this objective in six monitored campaigns between 1976 and 1982.

We believe that a causal relationship has been established between advertising and the reduced number of chip pan fires and that proof of this effect is enhanced by the way in which advertising works over time, or, more accurately, by the way the advertising effect decays over time.

The creative strategy of using the containment procedure not only to inform but also to encourage preventive behaviour produced highly visible advertising and appears to have helped achieve greater public awareness of both containment and preventive practices.

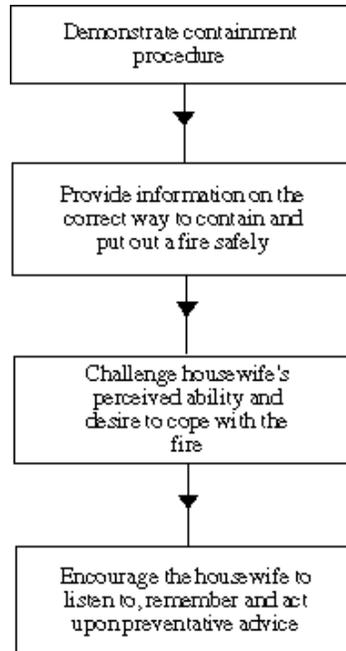
Furthermore, we believe the advertising has been not only effective but progressively more efficient. The campaign now costs two-thirds less in real terms than in 1976.

This advertising campaign has had a measurable and worthwhile effect on society: savings in damage to property have generally covered the cost of the advertising and there have been additional savings in loss of life, injuries and the fire brigade expenditure.

REFERENCE

1. N Philips. 'Measuring attitudes and behaviour – practical implications for advertising'. *Admap*, March 1979.

FIGURE 1: ADVERTISING MODEL



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