

WR1204

Household Waste Prevention

Evidence Review:

L3 m3-7 (T) – Everyday Actions

Around the Home

A report for Defra's
Waste and Resources Evidence Programme

October 2009

This research was commissioned and funded by Defra. The views expressed reflect the research findings and the authors' interpretation. The inclusion of or reference to any particular policy in this report should not be taken to imply that it has, or will be, endorsed by Defra

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L3 m3-7 (T) Attitudes and behaviour Everyday actions around the home

This paper examines the 'everyday' actions that are often included in waste prevention advice to households or consumers, covering a range of behaviours related to shopping choices and things around the home:

- Smart shopping
- Avoiding packaging
- Reusable bags
- Private reuse
- Avoiding junk mail
- Reusable nappies
- Rechargeable batteries
- Switching from bottled to tap water

Modules providing further insight or detail in relation to the everyday behaviours and to other waste prevention attitudes and behaviours are:

L1 m1 Executive Report	L2 m3 Consumers & waste prevention	L3 m3/1 (D) Extent to which waste prevention behaviours are practised L3 m3/2 (D) Motivations and barriers L3 m3/3 (D) Impacts of public campaigns and interventions L3 m3/4 (T) Attitudes & behaviour – food waste L3 m3/5 (T) Attitudes & behaviour – home composting L3 m3/6 (T) Attitudes & behaviour – reuse
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(D) denotes a briefing paper providing more background detail; (T) indicates a short focused topic briefing

1.1 Evidence reviewed

Evidence on public attitudes and behaviour with respect to these 'everyday' waste prevention behaviours is best described as patchy. In some areas, notably junk mail prevention and plastic bag versus reusable bag use, extensive surveys have been carried out and we have a detailed picture of public attitudes and behaviours. In other areas the evidence is much less comprehensive – although we can say something about most of the everyday behaviours, there are some, such as the use of rechargeable batteries, where evidence is particularly scant.

This paper draws on a number of sources which touch on these everyday waste prevention behaviours as part of research into waste prevention in general, as well as drawing on those few sources that focus specifically on one of these behaviours.

It is worth noting also that three of the WREP studies provide insight into how these kinds of everyday behaviours can be promoted as part of overall packages, either of waste prevention behaviours (Dorset County Council et al, 2007, WR0116) or more generally as a lifestyle choice (GAP et al, 2008, WR0114; Hampshire County Council and Brook Lyndhurst, 2008, WR0117). The new WRAP waste prevention toolkit will provide further guidance on junk mail, carrier bags and other activities.

1.2 Topline summary of findings

The main insights on everyday behaviours drawn from the waste prevention evidence base are:

Smart shopping behaviours are not widely practised. When thinking about waste and waste prevention, people tend to focus on the *disposal* of items rather than on the *purchasing* stage. Shopping behaviours in general may be particularly resistant to change.

People are very critical of **excess packaging** and do not appear particularly resistant to the idea of reducing packaging – but they tend to feel that this is outside of their control or not their responsibility.

Reusable bags appear to be a popular waste prevention behaviour, and it seems to be becoming more widespread. This is an area where people appear to be fairly amenable to change, to the extent that many are supportive of measures such as charging for plastic bags.

Private reuse (e.g. of containers around the home) appears to be a widespread waste prevention behaviour, but there is little information available as to what the barriers and motivations are, or its quantitative impact.

Avoiding junk mail is currently not widely practised, but people appear moderately willing to take action in this area. The main barriers, however, are lack of knowledge about how to do this, fears about giving up choice, and inertia – because taking action requires active effort.

There is relatively little information available on how common the use of **reusable nappies** is. The main barrier to their use appears to be the convenience of disposable nappies. Although a number of initiatives are in place to promote reusable nappies, these lack robust impact data.

There is very little information available on how common the use of **rechargeable batteries** is. A few small studies have also been carried out to investigate **switching from bottled water** to tap water (to avoid plastic bottle waste) and milk delivery services using reusable glass bottles but their results do not indicate how much waste can be prevented in this way.

It has been suggested in the literature that some of the everyday behaviours can act as hooks or triggers that lead to behavioural spillover and other waste prevention behaviours. Evidence for this effect is scarce, however, and any demonstrable impacts come with caveats related to the context in which behaviour change takes place¹.

¹ Behavioural spillover is currently being investigated by Brook Lyndhurst in Defra's *Exploring Catalyst Behaviour - EV0508*. <http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=16324>.

1.3 Key findings

The 'everyday' behaviours listed above have been investigated to different extents in the literature, but the following summary aims to cover for each of them in turn, and where possible:

- The waste prevention potential of the behaviour
- The extent to which the behaviour is practised
- Willingness to do more in this area
- Attitudes towards the behaviour
- Barriers and motivations
- Who is involved in the behaviour
- Impacts of initiatives and campaigns targeting the behaviour

Smart shopping

Potential

Waste aware shopping (e.g. buying refills, or buying bulk size products to avoid packaging) has been estimated to have the potential to reduce household waste by 0.5-1.0% (NRWF toolkit, cited in Tucker and Douglas, 2006a, WR0112). Tucker and Douglas (2006a, WR0112) suggest that point of purchase decisions may, in general, have more potential to prevent waste than decisions involving advance planning and effort.

Participation, willingness and attitudes

Smart shopping as a behaviour is difficult to measure, because it consists of a number of different behaviours. Various snapshots of participation, taken from surveys identified in the review, are given in [L3m3/1 \(D\)](#).

Two key studies that ranked different waste prevention behaviours (Tucker & Douglas, 2006, WR0112; Barr, 2007) both found that actions which involve consumers changing their shopping behaviour ranked at or towards the bottom of a long list of behaviours. In addition, OVAM (2008) point out that people's behaviour can vary a great deal between product domains – someone can make smart shopping choices within one product category but not in others.

Tucker and Douglas (2006a, WR0112) refer to a survey by Brook Lyndhurst in London in 2002², which neatly summarises the extent to which the public are *not* engaging in smart shopping: 55% of respondents reported that they never thought about the environment when shopping.

Barriers

In terms of barriers, Tucker and Douglas (2006a, WR0112) conclude from their literature review that:

- People are prone to overlooking the importance of *purchasing* when it comes to sustainable consumption, and are much more likely to be thinking about *disposal* (in other words, recycling);
- People tend to be unwilling to change their shopping behaviours in order to reduce waste; and
- Purchasing choices can become habitual routines and therefore resistant to change.

Also on the theme of barriers, Dorset County Council et al (2008, WR0116) report that the Dorset waste prevention campaign found "SMART shopping" as a concept to be too generic, and therefore difficult for the public to embrace.

² *Household Waste Behaviour in London*, Brook Lyndhurst with MORI for the Resource Recovery Forum.

The Hampshire WREP study (Hampshire County Council and Brook Lyndhurst, 2008, WR0117) noted that people tend to be locked-in to existing purchasing habits and product choices which may act as a block on the consideration of alternatives, even when they are suggested or demonstrated (e.g. using a vegetable box service to reduce packaging).

Motivations

Tonglet et al. (2004) draw the following conclusions on motivations for smart shopping:

- They appear to have a moral dimension as a motivator; and
- Time availability for shopping may be a key factor in allowing people to make 'smart' shopping choices.

The Hampshire project (2008, WR0117) also found that demonstrating products 'for real' could have an impact on consumers' engagement with waste prevention options (e.g. nappies, home composting) but this did not work for all products (e.g. vegetable boxes demonstrated at a farm shop visit).

Barr et al. (2005) also note that purchase-related waste management behaviours are not necessarily just related to the products selected, but to wider attitudes towards shopping and supporting certain retail practices such as Fair Trade.

Who participates in smart shopping?

There is little information in the literature about who engaged in smart shopping behaviours, though Tucker and Douglas (2006b, WR0112) found that younger people and larger households were more likely than retired people and smaller households to buy in bulk.

Campaign impacts

The Dorset waste prevention campaign promoted smart shopping, but the campaign appears to have had an ambiguous impact on participants' behaviour: there was a slow but steady increase in those reporting that they always think about reducing waste while shopping, but also an increase in those reporting that they never do this (Dorset County Council et al., 2008, WR0116). The Hampshire project (2008, WR0117) recorded a 5% increase in the number of project volunteers who buy refills. Other impacts on packaging are considered below. Global Action Plan similarly reported qualitatively that shopping was a notable area of change for its participants (GAP et al, 2008, WR0114).

Avoiding packaging

Potential

Packaging waste is one of the areas with the highest potential for reductions to be made, after food and green waste. This forms part of the 0.5-1.0% reduction that could potentially be achieved through smart shopping behaviours (Tucker & Douglas, 2006a, WR0112).

Participation, willingness and attitudes

A number of surveys have investigated the extent to which the public avoids excessive packaging, with reported levels ranging from ~10-40% (see L3 m3/1 (D)). This is much higher than in the national Defra Environmental Attitudes and Behaviour Survey (BMRB for Defra, 2007) which reports that only 3% "always or very often" decide not to buy something because it has too much packaging (though 26% do it at least sometimes). Notably, the way the question is asked makes an important difference to the level of participation reported, as does the nature of the sample (i.e. whether it is nationally representative, or for a specific area or target group).

Avoiding packaging may be a waste prevention behaviour that people are not overly averse to; Tucker and Douglas (2006a, WR0112) note that the Waste Aware Hertfordshire survey found that, when asked what else respondents would be willing to do to prevent waste, 20% said they would be willing to reduce packaging.

Barriers and motivations

Tucker and Douglas (2006a, WR0112) note that, although people's behaviour with respect to packaging is variable, they tend to have critical attitudes towards it. In addition, a number of the sources reviewed also conclude that people tend to see packaging as something that is beyond their personal control and therefore not their responsibility (e.g. Enviro, 2004; Obara, 2005; Tucker & Douglas, 2006a, WR0112; Hampshire County Council and Brook Lyndhurst, 2008, WR0117). People may also not feel guilty about buying heavily packaged products if they can recycle the packaging (Tucker and Douglas (2006a, WR0112), citing the Brook Lyndhurst survey in London, 2002).

A further barrier is that those who do avoid packaging are making private choices and their actions are not visible to others, so there is little chance of a descriptive or injunctive social norm developing through this means alone (i.e. I want to do X either because I see others doing it or I feel obliged to do it) (Tucker and Douglas (2006a, WR0112).

Tucker and Douglas also note that people may be more used to looking for recyclable packaging rather than "low-waste" packaging. Habitual lock-in to current choices, noted in relation to smart shopping above, also applies specifically to packaging avoidance (Hampshire County Council and Brook Lyndhurst, 2008, WR0117).

There are no clear conclusions in the literature as to what motivates people to avoid packaging.

Who avoids packaging?

Tucker and Douglas (2006b, WR0112) note that the largest and the smallest households appeared to be more likely than those in the middle to reject over-packaged goods.

Impact of campaigns

The literature provides a few examples but this is an area where more evidence is needed and, in particular reported behavioural change that is backed up by sales data.

Enviro (2004) report on the 'Save Money and The Environment Too' (SMATET) campaign in San Francisco, which involved local government and businesses collaborating to raise consumer awareness and change their behaviour, to make shopping choices that save money and produce less waste (e.g. buying reusable and long-lasting products). Survey data suggested that the campaign had influenced the behaviour of just over half of those who saw it (though no sample size is given), while sales data (from 1996) showed that the sales of goods with minimal or recycled packaging had increased by 20%.

NLWA (2009) report on the impacts of their 'Watch Your Waste Week' where 87% of participants (n=125) reported they made lifestyle changes as a result of their participation, and the most common change, made by 49 people, was to start buying goods with less packaging.

The Dorset waste prevention campaign (2007, WR0116) led to a small increase in reported packaging avoidance over the course of the three years of the campaign. The Hampshire project (2008, WR0117) noted some success on shopping behaviours, with 1 in 3 participants saying they had started to avoid packaging as a result of their involvement in the project.

Reusable bags

Participation

The most extensive consumer research on carrier bags has been done for WRAP, notably two national surveys (Andrew Irving Associates (2005) (n=1,048); and Ipsos MORI (2008b)). A question is also included in the Defra behaviours survey (BMRB, 2007).

The figures from the Ipsos MORI survey suggest that as many as 74% of people may reuse their carrier bags in some way – an increase since the 2005 survey by Andrew Irving Associates. Similarly, the use of ‘bags for life’ appears to have become more widespread, increasing from 13% in 2005 to 23% in 2008. The Defra 2007 survey reports that 25% “always” or “very often” take their own bag when shopping; this compares to 37% in the Ipsos MORI survey who say they reuse their bags specifically for shopping or carrying other items.

Levels of outright refusal of shopping bags are, though, much lower:

- 8% reported that they rarely or never using a free supermarket bag for their main shop in the 2005 survey; and
- 12% said they do not take any free disposable carrier bags from the supermarket in the 2008 survey.

Figures from other surveys show varying levels of carrier bag reuse, ranging from 10% to 55% (see [L3 m3/1 \(D\)](#)).

Attitudes

Obara (2005) found that plastic bags were an element of the household waste stream where householders felt they could have an influence, and bag reuse was considered by the survey respondents to be one of the most straightforward ways of minimising waste. There was also widespread support for a plastic bag tax in this study, as well as a consensus that this type of measure would be more effective than incentives.

Barriers

Andrew Irving Associates for WRAP (2005) identified the following barriers to reducing the use of plastic bags and increasing the use of reusable bags:

- *Forgetting to take reusable bags when going shopping*: the main barrier and cited by 67% (n=1,048);
- *Cost*: resistance to the idea of paying for carrier bags, especially on top of their shopping bill, and feeling there was no incentive for them to buy one;
- *Practicality*: single use bags were seen as lightweight, flexible, practical and useful, as well as free and plentiful, while some respondents thought ‘bags for life’ may be too large (and too heavy) or too small;
- *Habits*: being used to the functionality and flexibility of single-use bags could create a barrier to ‘bag for life’ use;
- *Lack of knowledge*: some respondents were unaware of ‘bags for life’ or had not seen any promotions about them (this is likely to have changed but no evidence was found);
- *Lack of environmental concern*: lack of awareness or concern over the environmental impacts of plastic bags;
- *Norms*: unwillingness to risk challenge or attract attention by reusing plastic bags;
- *Lifestyle and consumer priorities*: plastic bags from high street shops were seen as status symbols, reinforcing the pleasure of shopping, providing proof of purchase, and making it easier to return items, while reusing plastic bags was seen as ‘cheap’, ‘naff’ or ‘scruffy’;

- *Perceptions*: shops were perceived to use bags to promote themselves and to be reluctant to let customers use their own bags (again, this has probably changed but no data were found);
- *Responsibility*: some respondents blamed checkout staff for automatically setting out carrier bags at supermarkets, and packers for not trying to fill bags up – suggesting that they were attempting to ascribe responsibility for carrier bag use to someone else.

Motivations

In the same study (Andrew Irving Associates, 2005), the following motivations for reducing carrier bag use were found:

- *Obtaining a stronger bag*: out of those who had bought a 'bag for life' (n=437), this was the main reason for 66%;
- *Wanting a reusable bag for grocery shopping* was the main reason for 8%;
- *Wanting a reusable bag for other things* was the main reason for 3%;
- *Reusable bags being better for the environment* was the main reason for 3%.

When asked which reason would be most likely to persuade respondents to buy a 'bag for life', these bags being stronger and unlikely to split was most frequently considered the most persuasive reason for buying one by respondents (by 27%), while being better for the environment was the second (selected as the most persuasive reason by 19%).

In addition, out of potential measures to promote the use of 'bags for life' (irrespective of whether they approved of the measure), the following would be the most likely to persuade respondents to start using them:

- If they had to pay for normal bags (33%);
- If a small donation was made to a local charity or school every time the bag is used (18%);
- If bag reuse was rewarded by a small discount off shopping (10%); and
- If they were told more about the environmental damage caused by bags (9%).

Who reuses bags?

Perhaps not surprisingly, reusing bags appears to be more common among women than men (Andrew Irving Associates, 2005; Watson, 2008). Those in older age groups are also often found to be more likely to use their own shopping bag (Andrew Irving Associates, 2005; Tucker & Douglas, 2006b, WR0112), although Watson (2008) suggests that bag reuse is more common among the middle-aged because they make more routine and planned shopping trips than those in younger or older age groups. People in older age groups also tend to use fewer plastic bags in the first place, as well as to reuse them (Andrew Irving Associates, 2005). Tucker and Douglas (2006b, WR0112) also note that smaller households tend to be more likely than larger households to use their own shopping bag.

Finally, Watson (2008) reports that buying 'bags for life' varies on a regional basis, being more common in Wales (41%) and Greater London (38%) than in the North East, where it is at its lowest at 26%.

Impact of campaigns

The national, retailer voluntary agreement in England has reduced carrier bag use by 26% since 2006 (see [L2 m5](#) – which also mentions the Irish plastic bag tax). In the WREP behavioural change projects:

- The Dorset waste prevention campaign (2008, WR0116) led to a substantial increase in the reported use of reusable shopping bags over the course of the three years of the campaign.

- In Hampshire, a 16% increase was recorded in the number of people saying they use their own shopping bag instead of a supermarket bag, from an already high level at the start of the project of 67% (n=106).

An international example was provided by OVAM who cite a media campaign to reduce disposable bag use in 2004 (location not stated), which achieved a 4% drop in the use of plastic bags compared to 2003 – this then led on to more drastic retailer action on bags, e.g. eliminating or charging for bags, achieving a 35% drop in use levels by 2006, compared to 2003.

Private reuse (see L3 m3/6 (T) for bulky and textiles reuse)

Participation

Private reuse (of e.g. containers or paper at home) appears to be a widespread waste prevention behaviour, involving anywhere between 30% and 80% of the public, depending on the behaviour in question and the survey methodology (see L3 m3/1 (D) for further statistics).

Tucker and Douglas (2006b, WR0112) note that their correlation analysis suggests re-use of different materials may be associated. They found weak but significant correlations between different waste prevention behaviours, with the strongest correlations observed between the re-use behaviours – i.e. re-use of paper, newspapers and glass. They, as well as Barr (2007), further show that private reuse behaviours occupy an intermediate position in a hierarchy of waste behaviours, with donation at the top and changes to consumption choices at the bottom (shown in L3 m3/1 (D)).

Barriers

Enviros (2004) cite the National Waste Awareness Initiative scoping study, which suggested that the time and effort involved in reusing items at home were common barriers to this behaviour. Tonglet et al. (2004) also suspect that not having the time available for sorting items for reuse may prevent people from doing this. The Hampshire study (2008, WR0117) also found that there are limits to what people can do with leftover jars, plastics pots and so on, compared to the number of these items coming into their homes.

Motivations

There is little information in the literature about what motivates people to reuse, but a number of factors have been identified as predictors of reuse behaviour:

- Environmental values, knowledge and concern (Watson, 2008);
- Ecocentric values, convenience, effort, feeling that the action is worthwhile, a sense of satisfaction (Barr, 2007);
- Ability to perform the behaviour, contextual factors (Tonglet et al., 2004); and
- Influence of friends (Tucker & Douglas, 2006b, WR0112).

Who reuses items around the home

Tucker and Douglas (2006b, WR0112) found that retired people were more likely than younger people to reuse glass and cloths, and that detached households were more likely than terraced or semi-detached to reuse clothes as rags, with flats the least likely to do this. In addition, Tonglet et al. (2004) found that women were more likely than men to reuse plastic containers.

Avoiding junk mail

Potential

Tucker and Douglas (2006a, WR0112) report that the average British household receives 14.1 items of direct mail every four weeks. They refer to the NRWF toolkit, which estimated that junk mail prevention could feasibly lead to a 0.2-0.4% reduction in household waste; WRAP are currently using a figure of 4kg/hh/annum as the feasible potential (WRAP, 2009). Waste Strategy 2007 states that 550,000 tonnes of direct mail is generated each year, of which 368,5000 is unaddressed mail (i.e. mail that will not be affected by the Mailing Preference Service (MPS) opt-out).

Participation

Ipsos MORI (for WRAP, 2008a) found that of those who had heard of the MPS (n=848), 35% had registered. This equates to 15% across their entire sample – corresponding to the figure of 15% of the public who are registered with the MPS (see L2 m5).

In addition to registering with the MPS, people may prevent junk mail in other ways, such as using 'no junk mail' stickers or similar on their doors. Reported participation in avoiding junk mail in the literature reviewed ranged from 5% to 40% (all survey based). Some example statistics from the literature reviewed are given in the box below.

Attitudes and willingness

Evidence on whether people are willing to do more to prevent junk mail appears mixed.

On the positive side, Tucker and Douglas (2006a, WR0112) cite the Waste Aware Hertfordshire survey, which found that, when asked what else respondents would be willing to do to prevent waste, 40% said they would be willing to reduce junk mail. Similarly, an Ipsos MORI survey in Hertfordshire found that 40% would consider stopping junk mail in future (Tucker & Douglas, 2006a, WR0112).

The national Ipsos MORI (2008a) survey contradicts these figures, however: only 9% of those who receive direct mail addressed to the household (n=1,635), 11% of those who receive unaddressed mail (n=1,499) and 3% of those who receive free newspapers (n=1,403) said they would take action to prevent these.

Obara (2005) notes that junk mail was one part of the household waste stream where the survey respondents felt they could have some level of influence. They did, however (and despite the high proportion taking action in this area), feel that they lacked information on how to prevent junk mail.

Examples of the extent to which people reject junk mail

A survey carried out by Waste Aware Scotland in 2002 (no sample size given) found that less than 5% of respondents said they reject junk mail (Tucker & Douglas, 2006a, WR0112).

Surveys carried out by Waste Aware Hertfordshire in 2000 and 2004 found that 18% and 26%, respectively, of respondents claimed to refuse junk mail (Tucker & Douglas, 2006a, WR0112).

A survey by Ipsos MORI in 2004 in Hertfordshire found that 28% of respondents claimed they had stopped their junk mail (Tucker & Douglas, 2006a, WR0112).

In their own survey of Hampshire and East Ayrshire residents (n=1,463), Tucker and Douglas (2006b, WR0112) found that 33.9% of respondents reported they had taken action to prevent junk mail, compared to 57.1% who had not (and 9% who said they enjoyed receiving it).

A survey in Cardiff found that 36.5% of respondents reported they had taken steps to minimise their junk mail (Obara, 2005).

Barriers

Dorset County Council et al. (2008, WR0116) report that their waste prevention campaign found no specific barriers to junk mail prevention.

Tucker and Douglas (2006a, WR0112) postulate that lack of awareness and inertia may be the main barriers to registering with the MPS, and findings by Ipsos MORI (2008a) lend support to this:

- 38% of respondents (n=1,959) were unaware that “companies that send sales and marketing materials by post are obliged not to target anyone who has registered that they do not wish to receive such post”; and
- 50% of respondents had not heard of the MPS.

In the same study, among those who had heard of the MPS but had not registered (n=535), the most common reasons for not having registered were:

- Being too busy (20%)
- Not being bothered by direct mail (18%)
- Not having thought about it (17%)
- Not being interested (15%)
- Not having got round to it despite considering it (13%)

In addition, some people seem happy to receive junk mail, or are worried that joining the MPS will stop them receiving direct mail that they like or need (e.g. communications from the council). Tucker and Douglas (2006a, WR0112) note that research has suggested some people are happy to receive direct mail (although they feel that this research is often carried out by interested parties). Their own survey (Tucker & Douglas, 2006b, WR0112), as noted above, found that 9% of respondents enjoyed receiving junk mail, although research has suggested that this figure may be even higher elsewhere – Salhofer et al. (2008) cite a survey in Vienna which found that 47% of residents stated that they wanted to continue receiving junk mail. Concern about losing control over what mail they received was noted as a barrier in the Hampshire study (Hampshire County Council and Brook Lyndhurst, 2008, WR0117). The Ipsos MORI (2008a) survey for WRAP provides more detailed figures. It found that:

- only 5% say they enjoy receiving direct mail addressed to the household
- 1% enjoy unaddressed mail
- 19% enjoy free newspapers

Motivations

In terms of motivations for preventing junk mail, Ipsos MORI (2008a) report that among those who had registered with the MPS (n=294), the most common reason for having done so was to stop unwanted junk mail, cited by 95%. Environmental reasons or junk mail being a waste of paper were cited by just 9%.

Who prevents junk mail?

There is little information in the literature about who prevents junk mail, but Tucker and Douglas (2006a, WR0112) note that social class AB households receive considerably more junk mail than the average household – suggesting that action by them may have the greatest potential to have an impact on this waste stream.

Campaign impacts

Dorset County Council et al. (2008, WR0116) report that their campaign led to a small increase in reported prevention of junk mail over the course of the three years of the campaign. NLWA (2009) report

that during October 2008, when the 'Watch Your Waste Week' was held, 1,908 North London residents signed up to the MPS – representing a 0.9% increase in registrations compared to September. The report goes on to calculate that the October registrations could lead to 45 tonnes of junk mail being prevented over the course of a year.

In spite of repeated promotion, the Hampshire project (2008, WR0177) found that junk mail was one of the areas in which project participants were most resistant to change. Unlike other waste prevention activities, it was also one where participants were doing relatively little to start with. While 23% did sign up to the MPS as a result of the project, 1 in 3 participants had still not signed up by the end of the project and nearly 2 in 3 did not have a "no junk mail" sticker on their door, even though these were provided as part of the welcome pack on sign-up (n=131).

A schools based campaign in Essex, involving 95 families in two schools, reported much greater success, with a reduction of between 70% and 83% recorded over the eight week period during which children weighed their household's junk mail (see [L2 m3](#) and the WRAP Waste Prevention toolkit).

Reusable nappies

Potential

Woodard and Harder (undated) refer to WRAP data which shows that in 2005/06 22,954 tonnes of waste were prevented through the use of reusable nappies. Tucker and Douglas (2006a, WR0112) estimate that a just a 10% switch to reusable nappies would prevent between 0.2-0.3% of household waste.

Participation

The data presented in the literature on the extent to which reusable nappies are used is mixed. Somewhere in the region of 3% to 5% of households with nappy age children seems a reasonable estimate (Ipsos MORI, 2009, Scottish Environmental Attitudes and Behaviours Survey; Waste Aware Hertfordshire, 2004, cited in Tucker and Douglas, 2006a, WR0112). This matches the 3.8% cited by Exodus (for WRAP, 2006) though they suggest 7.8% among parents of newborns.

Barriers

Tucker and Douglas (2006a, WR0112) note that there is relatively little information available on attitudes towards real and disposable nappies. As far as it is evident in the literature, the reasons why reusable nappies are used by so few parents are:

- According to Tucker & Douglas, 2006a, WR0112, citing a survey in Surrey (no sample size given):
 - Disposables are more convenient (93.7% of those using disposable nappies)
 - Not wanting to wash reusable nappies (71%)
 - The expense of a nappy laundering service (56%)
 - Only 7% said they used disposable nappies because they did not know of any alternatives.
- According to Exodus market research for WRAP (2006), key barriers are:
 - Inconvenience (especially for working parents)
 - A perception that reusable nappies leak
 - Hard to buy in mainstream stores (including supermarkets)
 - Being unaware of modern nappy designs/being put off by the old fashioned image of terry nappies and pins
- Salhofer et al. (2008) suggest the following reasons for low rates (1.5% of parents) of reusable nappy use in Vienna:
 - Lack of information about the availability of subsidies
 - Greater need for information about the handling of reusable nappies

- Competition from the professional promotion of disposable nappies

Tucker and Douglas (2006a) also refer to research which has suggested that the social norm to use disposable nappies could override environmental considerations. Exodus make a similar point about the dominance of disposable nappies in the market.

Motivations

Tucker and Douglas (2006a, WR0112) note that the Surrey survey found that 56% of those using reusable nappies said they did so for environmental reasons – while 36.6% cited the cost of disposable nappies. Woodard and Harder (undated) also note that the cost savings associated with real nappies over disposables may provide a motive for choosing reusable nappies.

Tucker and Douglas (2006a, WR0112) also refer to a survey carried out in a hospital, which suggested that early experience of reusable nappies in a supportive environment can make parents more likely to use reusable nappies through building confidence. In addition, the mothers interviewed for that survey often suggested that their partner's interest in environmental issues was a factor in their decision to choose reusable nappies. This finding corresponds to other research cited by Tucker and Douglas (2006a, WR0012) which found that awareness of environmental consequences predicts intentions to buy reusable nappies.

Exodus (2006) identified environmental reasons as by far the main reason for choosing reusable nappies, followed by the influence of other parents or family.

Impact of campaigns

Data on the impact of nappy campaigns in the sources reviewed was scarce, and largely limited to outputs (e.g. how many nappy packs had been handed out) rather than outcomes in terms of waste prevented. As noted above, WRAP estimated in 2005/6 that 22,954 tonnes of waste were prevented through the use of reusable nappies.

Dorset County Council et al. (2008, WR0116) report on self-declared real nappy use and conclude that the Dorset waste prevention campaign, however, had virtually no impact on the use of reusable nappies over the course of its three years. In Hampshire (2008, WR0117), the New Parents pilot group were targeted with nappy promotions and demonstrations (as well as other lifestyle advice), as a result of which 22% (8/37 respondents who completed the follow up survey) started using reusable nappies, either in combination with disposables or exclusively.

Rechargeable batteries

There is very little information in the literature about attitudes and behaviours with respect to rechargeable batteries.

Data from a limited number of surveys (see [L3 m3/1 \(D\)](#)) suggest around 30% to 40% may use rechargeable batteries.

Tucker and Douglas (2006b, WR0112) found that younger people and larger households were more likely than retired people and smaller households to buy rechargeable batteries, and that those living in detached homes were more likely than those living in terraced or semi-detached homes to use rechargeable batteries, with those living in flats the least likely.

Drinking tap water

Waste Watch (2007b, WR0105) ran a campaign called 'Test the Water' which challenged participants to give up bottled water and switch to tap water for two weeks, in order to reduce plastic bottle waste. A total of 166 people took up the challenge, and 30 were re-contacted to assess the impact of the campaign.

The main barriers to switching to tap water were:

- Lack of opportunities for filling up a reusable water bottle when away from home
- Adapting to the taste of tap water
- Remembering to bring a refillable bottle
- Overcoming the habit of buying or drinking bottled water

Motivations for switching to tap water were:

- Financial savings;
- A desire to 'do their bit' for the environment (though half as many cited waste prevention directly)
- Being convinced of the benefits of tap water;

Of the 30 follow-up survey respondents, 16 reported to have been completely successful in giving up bottled water for the duration of the two weeks. 25 respondents also claimed that they intended to continue drinking tap water instead of bottled water in future.

Reusable milk bottles

Watson (2008) refers to a study of a doorstep milk delivery service, which found that motivations for using the service included its convenience, the lack of moral dilemmas to do with disposal, and the milk bottle as a symbol of community.

Spillover effects of everyday behaviours

The evidence on spillover is limited and more evidence is required (see footnote 1).

Dorset County Council et al. (2008, WR0116) report that the Dorset waste prevention project found junk mail to be a popular 'hook' which the doorsteppers could use to initially engage residents in conversation about waste prevention, then moving on to other relevant behaviours.

Waste Watch (2007b, WR0105) found that 22 of the 30 'Test the Water' participants said they had started to think about other things they could do at home to reduce waste, e.g. re-using items, buying products with less packaging, buying non-disposable products, using cloth bags, reducing junk mail.

The Hampshire project (2008, WR0117) identified social network spillover effects, with the 133 direct participants who filled in a follow-up survey (out of 406 participants in total) having talked to at least 1,600 other people about the project.

1.4 Opportunities for progressing waste prevention

The everyday waste prevention behaviours differ in their popularity and the extent to which they are currently practised. For example, private reuse behaviours appear to be fairly widespread, while attitudes are fairly positive towards junk mail prevention and reusable bags, though behaviours do not necessarily follow suit. In contrast, smart shopping is not widely practised, while packaging avoidance is unpopular

and people tend to feel this is not their responsibility – though they do have strong feelings about excess packaging.

It needs also to be acknowledged that packaging plays a key role in helping to prevent food waste (see L3 m3/4)

It would therefore appear that the scope for encouraging different types of everyday waste prevention behaviours varies. Reusable bags have increased in popularity in recent years, and the evidence suggests that people may even be fairly supportive of the idea of charging for plastic bags. Junk mail is an area where people appear willing to do more to prevent waste, and there may be scope here to encourage them to take action. Although smart shopping is not currently widely practised, Tucker and Douglas (2006a, WR0112) suggest that it has significant potential for waste prevention and may therefore be worth the effort of promoting. In contrast, current attitudes towards packaging suggest that packaging avoidance may be a difficult behaviour to promote – although some elements of this, such as buying loose fruit and vegetables, already appear to be gaining popularity.

At the same time, it is worth noting that each individual behaviour is likely to have only a small impact on the household waste stream as a whole. Dorset County Council et al. (2008, WR0116) note that there is some evidence that a number of these everyday behaviours need to be combined in order to achieve noticeable reductions in waste arisings. (Planning for combinations of actions is covered in the WRAP waste prevention toolkit).

Although there is some suggestion in the literature that the everyday waste prevention behaviours may act as triggers or hooks which engage people in waste prevention behaviour in general, there is no concrete evidence that promoting any of the everyday behaviours will lead to behavioural spillover with significant waste prevention impacts. Rather, it appears that some of the everyday behaviours are particularly well suited to engaging people in a one-to-one discussion about waste prevention – as demonstrated by the example of doorstep discussions around junk mail in the Dorset waste prevention campaign (AEA et al., 2008, WR0116). This approach does, however, require direct and personal engagement. Behavioural spillover in the absence of such engagement tends to be a very slow process (Tucker & Douglas, 2007, WR0112).

1.5 Barriers to progressing waste prevention

The everyday waste prevention behaviours all have very specific barriers that relate to them – for example, **lack of a sense of responsibility** when it comes to avoiding packaging, the **habit** of not bringing reusable bags when shopping, simple **inertia** when it comes to preventing junk mail, and the **convenience** of disposable nappies over reusable ones.

This suggests that the intervention measures required to overcome the barriers will vary depending on the behaviour in question, and that the barriers need to be understood for each specific behaviour. It also points to the need for joined up top-down and bottom-up approaches – for example, national voluntary agreements (e.g. on bags, or junk mail) complemented by local authority campaigns to maximise their impact.

1.6 Researchers' recommendations and further questions

There is, actually, little consensus in the literature reviewed about which everyday behaviours should be targeted. Obara (2005) suggests that local authorities should focus their efforts on promoting waste prevention in those areas that householders feel they are able to influence – identified in her research as plastic bags and junk mail. Tucker and Douglas (2006a, WR0112), on the other hand, conclude that

packaging waste reduction needs to be prioritised by industry, because this is an area that people feel very strongly about but feel unable to influence it themselves. They argue that public motivation and confidence in preventing waste will only develop if they can see that others – in this case manufacturers and retailers – are taking action.

On a more general note, Tonglet et al. (2004) conclude that because waste minimisation through purchasing and through reuse are different behaviours (and both are different from recycling), different strategies and messages are needed to encourage participation in these behaviours. Similarly, Tucker (2007b, WR0112) suggests that targeting groups or categories of behaviour may be more successful than targeting individual behaviours. Barr (2007) also states that waste prevention policy needs to treat all waste management behaviours differently, and encourage them in different ways. The Hampshire study authors (2008, WR0117) warn that care needs to be taken in putting together packages of suggested behaviours because there is a tendency for people to choose the easiest ones, rather than necessarily those that will have the greatest waste prevention impact.

1.7 Practical issues and lessons

The evidence suggests that the everyday waste prevention behaviours differ in their popularity and the extent to which there is scope to engage more people in them. It also seems that different behaviours, or at least different groups of behaviours, require different approaches and messages to promote them. Given that each of these everyday behaviours has limited or moderate scope to actually reduce total waste arisings – either because participation is low or the activities themselves involve little quantitative reduction – it becomes questionable whether the efforts to promote them are worthwhile, or whether resources would be better used on other waste prevention behaviours.

It may be that some of these everyday behaviours are worth encouraging in isolation, particularly where there are national level initiatives that will help to change the prevailing social norms, and support increased participation (e.g. on carrier bags and junk mail). Shopping is one area where there are many barriers and this may require entirely new modes of thinking by households before prevention can really take off in this arena (see, for example, GAP, 2008, WRO114).

Everyday waste prevention behaviours are sometimes hailed as ‘hooks’ to get the public engaged in waste prevention and involved in other related behaviours. The literature, however, strongly suggests that this process of behavioural spillover is likely to be extremely slow if left to develop unaided. The use of the ‘everyday behaviours’ as hooks does appear to work well, but only in a context where waste prevention is promoted on a one-to-one basis through personal discussion and advice.

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Basis of this report

The material in this paper is derived from a large scale evidence review of household waste prevention conducted by Brook Lyndhurst, the Social Marketing Practice and the Resource Recovery Forum for Defra's Waste and Resources Evidence Programme.