

Domestic Food Waste

Insights Report

WRAP

LOVE
FOOD
hate waste

Formerly
We Are What We Do

Shift

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This document was created by Shift, formerly known as We Are What We Do, in partnership with WRAP, as part of the research phase of a product/service development process aimed at reducing domestic energy consumption in the UK, commissioned by The Ashden Trust, JJ Charitable Trust and Mark Leonard Trust.

For more information see shiftdesign.org.uk

Contact

tori.flower@shiftdesign.org.uk

Scale of issue

Environmental impact

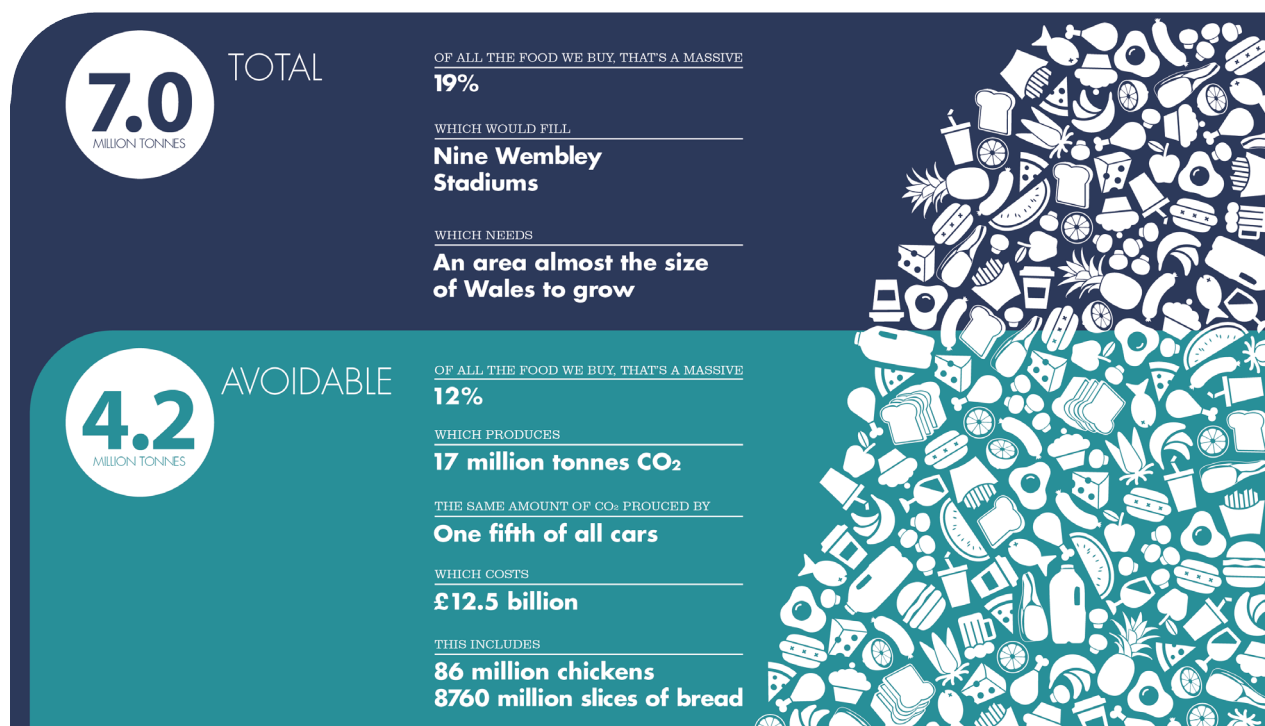
Food waste¹ is a major environmental problem both globally and in the UK. The global carbon footprint of food waste per year is 3.3G tonnes CO₂e, and if this was compared to the total carbon footprint of whole countries, it would be third after the total carbon footprints of US and China.²

The greenhouse gases (CO₂, as well as methane CH₄ and nitrous oxide N₂O, which have a weighting factor of 25 and 298 times CO₂ respectively³) produced in the production, transport, storage and decomposition of food, are significant: food and drink waste in the UK causes 900 million tonnes CO₂e per year.⁴

Diagram 1:

Domestic food waste in the UK per year

Questaed, T., Ingles, R. & Parry, A. (2013) Household Food and drink waste in the United Kingdom 2012, Banbury: WRAP



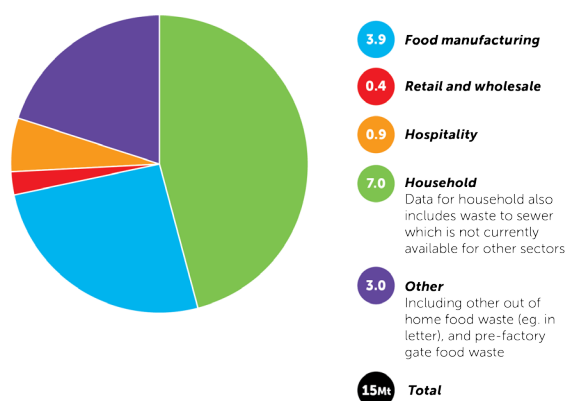
Domestic and avoidable waste

Of the food and drink that is wasted, over half of it is generated in the home (Diagram 2), and of this, 60% (by weight) is deemed 'avoidable', as it could have been eaten at some point prior to throwing away (Diagram 3). It is this domestic, avoidable waste we are focused on.

Diagram 2:

Domestic food waste: a major part of food waste's carbon footprint. Tonnes of food waste by source

WRAP 2013, Estimates of food and packaging waste in the UK grocery retail and hospitality supply chain, Banbury: WRAP

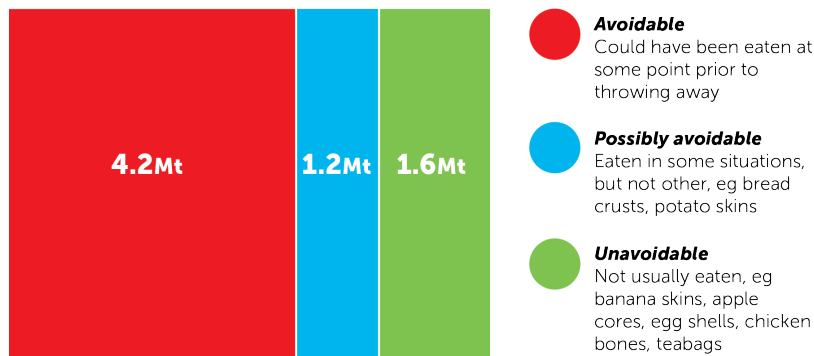


¹ An umbrella term commonly used for both food and drink waste. ² Food and Agriculture Organisation (FAO) (2013) Food wastage footprint – Impacts on natural resources. Rome: FAO ³ IPCC 2007 Food and Agriculture Organisation (FAO) (2013) Food wastage footprint – Impacts on natural resources. Rome: FAO ⁴ Questaed, T., Ingles, R. & Parry, A. (2013) Household Food and drink waste in the United Kingdom 2012, Banbury: WRAP

Diagram 3:

Breakdown of avoidable, possible avoidable and unavoidable food waste.

WRAP 2013, Estimates of food and packaging waste in the UK grocery retail and hospitality supply chain, Banbury: WRAP



The average household

Despite the fact that it costs the average household almost £60 a month, and consumers are troubled by wasting food,⁵ around 160kg of avoidable food and drink is thrown out per household per year (Diagram 4). Preventing avoidable domestic food waste in the UK could save 17 million tonnes of CO₂e emissions annually.⁶

Diagram 4:

Avoidable food waste in the average household in the UK per year

Quested, T., Ingles, R. & Parry, A. (2013) Household Food and drink waste in the United Kingdom 2012, Banbury: WRAP



Comparison with other domestic behaviours

Food waste is a worthy focus when looking to reduce the domestic CO₂e emissions as it forms a major part of its carbon footprint. Household emissions associated with food represent around 14% of domestic emissions for an average household, making it the largest single contributor to total emission, larger than either electricity or gas alone (Diagram 5).⁷

WRAP estimates that avoidable food waste is associated with of 0.62 tonnes CO₂e per household per year, which compares to total emissions associated with consumption of approximately 37 tonnes CO₂e. An average UK household eliminating avoidable food and drink waste has the potential to reduce greenhouse gas emissions by a similar amount to installing 270 mm of loft insulation or all household members foregoing an annual return flight from the UK to central Europe.⁸

Crucially, because a high percentage of waste is avoidable, food waste has an unusually high potential for improvement.⁹ Equally, research suggests there is a greater appetite and ability for change around food waste, compared to other domestic energy saving activities (see Diagram 6).¹⁰

⁵ Blaming the consumer – once again: the social and material contexts of everyday food waste practices in some English households, David Evans, University of Manchester, 2011 ⁶ Quested, T., Ingles, R. & Parry, A. (2013) Household food and drink waste in the United Kingdom 2012, Banbury: WRAP ⁷ Chitnis, Sorrell, Druckman, Firth and Jackson (forthcoming) Who rebounds most: Estimating direct and indirect rebound effects for different UK socioeconomic groups. Ecological Economics. ⁸ Chitnis, Sorrell, Druckman, Firth and Jackson (forthcoming) also investigate the relative rebound effects of different energy savings measures. We will continue to investigate how the rebound effect of food waste impacts the total emissions. ⁹ Spaghetti Soup: The Complex World of Food Waste Behaviours T.E. Quested, E. Marsh, D. Stunell, A.D. Parry ¹⁰ A framework for pro-environmental behaviours, 2008, DEFRA

Diagram 5:

The share of total greenhouse gas emissions by category for an average household

Chitnis, Sorrell, Druckman, Firth and Jackson (forthcoming) Who rebounds most: Estimating direct and indirect rebound effects for different UK socioeconomic groups. Ecological Economics.

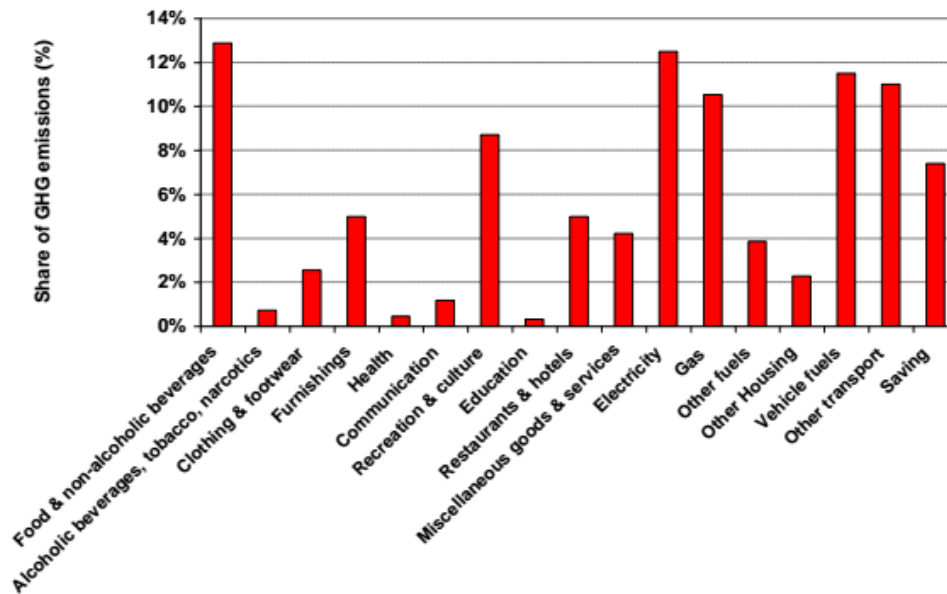
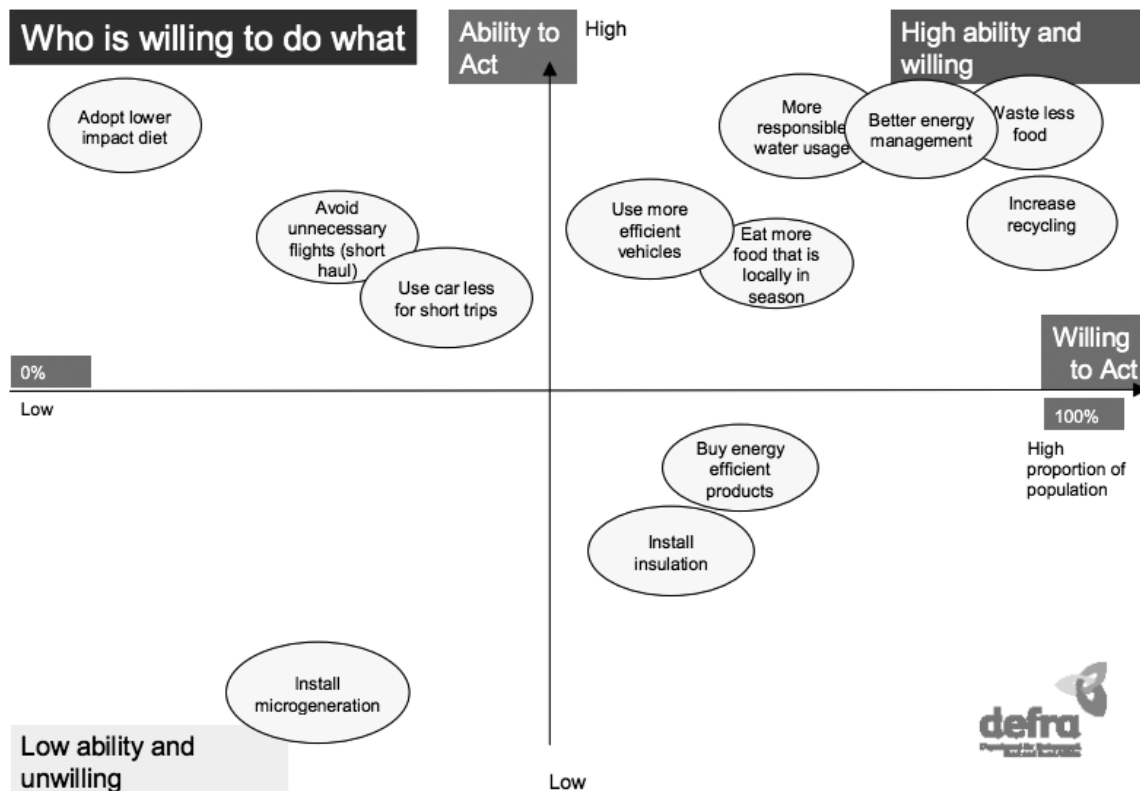


Diagram 6:

People's willingness and ability to act

A Framework for Pro-environmental Behaviours, 2008, DEFRA



Reduction versus recycling

There is a clear case to be made for reducing food waste, as opposed to encouraging alternative methods of disposal beyond landfill, as this has a greater potential impact in carbon reduction, accounting for the carbon accrued in the production, transport and storage of food, as well as that produced in decomposition. One tonne of food waste prevented leads to 4.02 tonnes of CO₂e avoided, whereas one tonne of food waste diverted from landfill to anaerobic digestion leads to just 0.5 tonnes of CO₂e avoided.¹¹

Nature of the issue

"Food waste arises as a consequence of households juggling the complex and contradictory demands of day-to-day living"¹²

In order to reduce CO₂e emissions resulting from food waste firstly, the behaviours which lead to food waste and secondly, the context that causes these behaviours, need to be understood.

To date, there has been a lot of emphasis on the first of these – the majority of the public facing work has aimed to raise awareness about the consequences of food waste and provide information that will help individuals to change their actions.¹³

However, the most recent publication from WRAP and work by sociologists specialising in food waste have shown that this approach can miss the ways in which so-called 'waste behaviours' relate to the dynamics of everyday life.¹⁴

Our behaviour (both around food waste and more generally) can be seen to be the result of the myriad of pressures and influences which impact on our lives. The emotional context in which decisions are made and the influence of peers, family members, the media and institutions in our lives is crucial.

It is only when we truly understand the emotional contexts that we can identify the barriers to positive behaviours and the motivations that can be harnessed to encourage these.

In regard to food waste, WRAP have mapped in detail the six stages of the domestic food cycle (planning, shopping, storage, preparation, consumption and disposal) and identified the positive and negative behaviours associated with each stage.¹⁵

However, they acknowledge "These behaviours [associated with food waste prevention and generation] are usually performed for reasons unrelated to waste prevention and have both a marked habitual element and a pronounced emotional component... Other concerns – for example relating to other aspects of food, health, or family expectations of meals – are likely to be at the top of people's minds at the time actions that result in food waste are undertaken."

For example, the over-buying of fresh items with a short shelf life and low likelihood of being eaten, such as fruit and vegetables, can be viewed in the context of wanting to be healthy and a desire to encourage and provide for this. Similarly, overbuying at supermarkets might be the result of preferring to overprovide for home than risk running out of provisions for a young family. A busy young professional might forgo a planned meal in their fridge for the opportunity to go out and socialise with friends she rarely sees. A parent may be over cautious with date labels as they are fearful of food poisoning in their family and the repercussions this could have on organising daily life. They may opt to cook something new rather than using up their leftovers, even if the new meal is 'something quick and easy from the freezer' taking equal preparation time and of lower nutritional value, as leftovers are not seen as 'proper food' and they want to be 'good parents'.

Sometimes these pressures are in conflict with one another, for example, the desire to buy excessive amounts of healthy food with the desire to save money when shopping.

Cappellini and Parsons identify three primary influences on creating everyday meals. Differentiating between everyday, thrifty meals, usually served during the week and extraordinary meals served at weekends and special occasions, they note everyday, thrifty meals "are driven by the idea of saving resources, including time, money and effort."¹⁶ There is variance from house to house in what constitutes "quick" (10 mins, 30

¹¹ Quested, T., Parry, A., Easteal, S. & Swannell, R. (2011) Food and drink from households in the UK, Nutrition Bulletin, 36, 460-467 ¹² Blaming the consumer – once again: the social and material contexts of everyday food waste practices in some English households, David Evans, University of Manchester, 2011 ¹³ See the Love Food Hate Waste campaign and work by supermarkets ¹⁴ Spaghetti Soup: The Complex World of Food Waste Behaviours, Authors: T.E. Quested, E. Marsh, D. Stunell, A.D. Parry, WRAP, 2013 A brief pre-history of food waste and the social sciences, Evans D., Campbell H., Murcott A., Practising thrift at dinnertime: mealtime leftovers, sacrifice and family membership, Cappellini B and Parsons E. Blaming the consumer – once again: the social and material contexts of everyday food waste practices in some English households, Evans D., University of Manchester, 2011 Binning, gifting and recovery: the conduits of disposal in household food consumption, Evans D. 2010 Beyond the Throwaway Society: Ordinary Domestic Practice and a Sociological Approach to Household Food Waste Evans D. 2011 ¹⁵ See the Love Food Hate Waste website for tips across the six stages for example ¹⁶ Practising thrift at dinner time: mealtime leftover, sacrifice and family membership, in Waste Matters: New perspectives on food and society, Evans, Campbell, Murcott

mins?), "cheap" (£5, £25?) and "low effort" (a simple meal cooked from scratch, frozen food, takeaways?) but all three factors play a part. Again, tensions between these can arise and one has to be weighed off against another, for example opting for something less cheap if it is quicker or for something requiring greater effort if it is cheaper.

David Evans, Lecturer in Sociology, Sustainable Consumption Institute Research Fellow at the University of Manchester, and food waste expert, writes, "It seems somewhat perverse to position food waste as a matter of individuals making negative choices to engage in behaviours that lead to the wastage of food. Indeed, the analysis here suggests that food waste arises as a consequence of households negotiating the contingencies of everyday life."

"It would be wrong" he continues, "... to suggest that there is a need for attitudinal change insofar as the respondents encountered did not appear to have a careless or callous disregard for the food that they end up wasting. More generally, the analysis has demonstrated some of the ways in which waste is a consequence of the ways in which domestic food practices are socially organised."¹⁷

People do not think a lot about food waste, but they do think about individual activities that reduce and increase food waste, and primarily for reasons not relating to food waste. This tendency can be seen across most domestic energy usage activity. It corresponds with Social Practice Theory, developed by Elizabeth Shove, who argues people do not directly use energy, instead we carry out a range of activities or 'social practices' that lead to consumption of energy: we make ourselves warm, we cook, do our laundry etc. She suggests those wanting to reduce consumption should therefore focus on how such practices are reproduced and changed.¹⁸ This focus on understanding the context and pressures of everyday life on food waste therefore provides transferable insights that are relevant to others encouraging the reduction of energy usage in other domestic energy sectors.

The social contexts which drive the behaviours which lead to food waste are mapped in Diagrams 7–12. These were developed based on WRAP's consumer insights and existing ethnographic research cited elsewhere in this section. They are organised in accordance with WRAP's six stage domestic food cycle.

In addition to the above, it is worth noting that the price of food also appears to have an impact on food waste behaviours. Post World War II, when food was scarce and prices high, lower levels of wastage were seen, particularly compared to the 1950s, when a number of changes took place including shifts in technology, production practices and economic policies, meaning food rapidly became cheap and abundant and food waste levels increased.¹⁹ Similarly, food prices have risen by 12.6% above inflation between 2007 and 2013, while incomes have stalled, and food waste levels reduced by 21% between 2007 and 2012.²⁰ This decrease could be the result of a number of factors, including the Love Food Hate Waste campaign run by WRAP and their work with suppliers and supermarkets over this period. However, the perceived value of food appears to play an important part in explaining how much food people waste.

It is clear that organising and running a home is fraught with pressures and tensions. There is a clear case for an approach that focuses on alleviating the pressures highlighted, with the aim of reducing food waste as a consequence. Any intervention, should not make food waste an additional thing to worry about, rather should ease existing demands, making the intervention genuinely useful/desirable and not requiring the audience to be persuaded to use it. Solutions that increase the perceived value of food are also worth exploring.

¹⁷ Blaming the consumer – once again: the social and material contexts of everyday food waste practices in some English households, David Evans, University of Manchester, 2011 ¹⁸ <http://www.lancaster.ac.uk/staff/shove/exhibits/transcript.pdf> ¹⁹ Evans, D., Campbell, H. & Murcott, A. (2013) 'A brief pre-history of food waste and the social sciences', in Evans, D., Campbell, H. & Murcott, A. (eds.) Waste Matters: New Perspectives of Food and Society, Oxford: Wiley -Blackwell ²⁰ <http://www.bbc.co.uk/news/uk-24192396>; Quested, T., Ingles, R. & Parry, A. (2013) Household Food and drink waste in the United Kingdom 2012, Banbury: WRAP,

**Outcomes**

- Not writing a list (mental or written)
- Not checking fridge/cupboard before shopping
- Not having constant knowledge of what is in the cupboard/fridge
- Changing plans last minute (cancelling eating, changing times, changing numbers eating, changing size of meal needed etc)
- Not eating the foods that need to be eaten first
- Not doing online shopping (which can reduce waste)
- Ordering too much food online
- Frequent top up shops and 'spontaneous purchasing'

Ultimate outcome

Food goes to waste



Outcomes

- Straying from list
- Buying BOGOF, multipacks and special offers, food reduced as approaching sell by date
- Buying items that won't be needed
- Choosing items which are less fresh from selection available
- Buying more fresh and chilled items, rather than ambient, frozen, preserved foods
- Frequent 'top up shops'
- Buying items that they only need a part of
- Not using a cool bag to transport chilled goods
- Buying food with less protective packaging thinking its better for environment
- Buying packs rather than fewer loose items
- Buying takeaways and not finishing them
- Accidentally mis-(over) ordering items online
- Overordering takeaways

Ultimate outcome

Food goes to waste



Outcomes

- Keeping fruit in fruitbowl rather than fridge
- Removing all packaging from fruit and veg
- Keeping bread in fridge
- Not closing bread packets properly/loosing tag
- Not keeping cheese in sealed container
- Not putting cooked leftovers back in fridge
- Not freezing leftovers
- Not freezing uncooked food that might go off
- Not adjusting fridge temperature to right level
- Doing mass clear out of fridge/freezer
- Not having constant knowledge of what is in the cupboard/fridge and when it will go off
- Ignoring best before dates

Ultimate outcome

Food goes to waste



Outcomes

- Not checking everything in fridge/store cupboard
- Not using raw ingredients including those that have already used half of
- Not eating cooked leftovers
- Not eating food put in freezer
- Not prioritising food based on what needs to be eaten first
- Choosing a takeaway over food that needs eating
- Cooking too much especially pasta/rice
- Not measuring first using scales/measuring jugs, spaghetti measurers etc
- Making separate meals for adults and children
- Not making separate meals for adults and children
- Food burnt/ruined during preparation
- Not liking food prepared

Ultimate outcome

Food goes to waste





Outcomes

- Putting food in general bin not food waste bin/compost/wormery
- Not feeding left over food to pet
- Not giving leftovers to neighbours, friends or family
- Putting food in dry recycling bin
- Putting drinks down drain rather than freezing

Ultimate outcome

Food goes to waste

Scope

In order to have an impact of a specific set of behaviours it is sensible to narrow down the scope. In this section the pros and cons of narrowing down by food type and by audience are explored.

a. Narrowing down scope by food type

Across the different food types there is variance in:

- i. the quantity
- ii. the potential for reduction, based on existing behaviour
- iii. carbon footprint of different food stuffs thrown away.

i. Food type – variance in quantity wasted

Bread, potatoes and milk are the most commonly thrown away items (Diagram 13). Of the total amount of food wasted, fresh vegetables, salads and drink represent the largest categories by weight – 19% 810,000 tonnes and 17% 710,000 tonnes, respectively (Diagram 14). Varying amounts of food is wasted at different points in the food cycle too (Diagram 15).

Diagram 13: Most wasted food and drink items (by weight)

Quesited, T., Ingles, R. & Parry, A. (2013) Household Food and drink waste in the United Kingdom 2012, Banbury: WRAP,

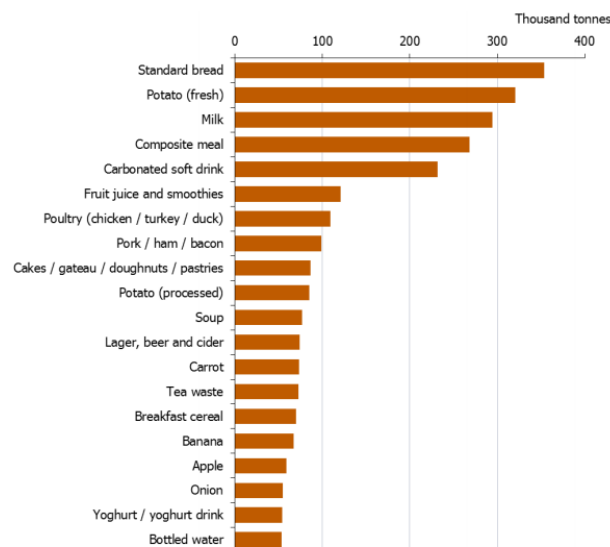


Diagram 14: Proportions of avoidable food and drink waste by food group (weight)

Quesited, T., Ingles, R. & Parry, A. (2013) Household Food and drink waste in the United Kingdom 2012, Banbury: WRAP,

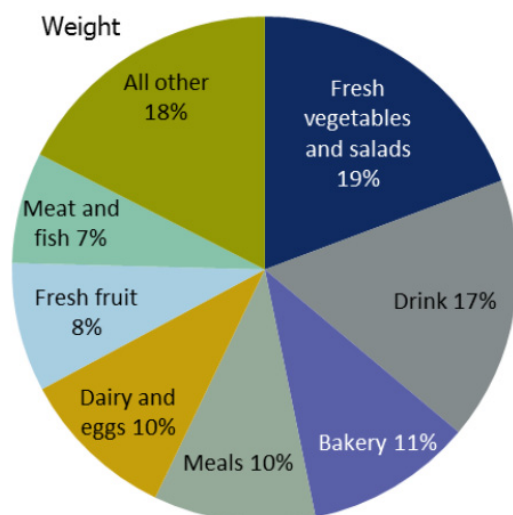
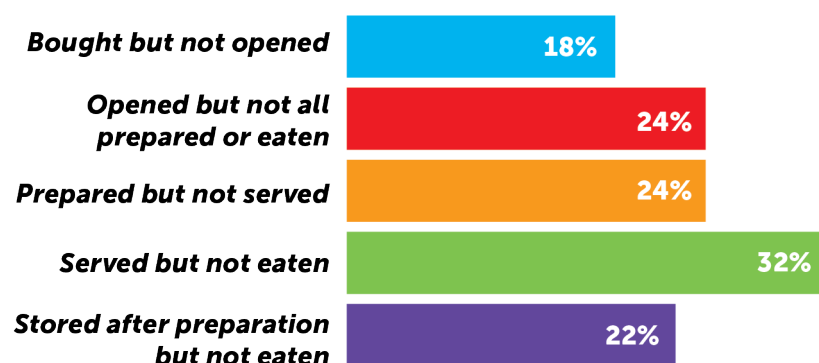


Diagram 15: At what point is food wasted? Percentage of population who report to waste significant amounts of food at different points in domestic food cycle

Cox, J & Downing, P. (2007) Food behaviour consumer research: Quantitative Phase, Banbury: WRAP



ii. Food type – variance in potential for reduction

Between 2007 and 2012, there was a reduction of almost a quarter (24%), from 210 kg to 160 kg per household per year, due to increased food costs, raised awareness and other factors.²⁰ This large reduction in avoidable food and drink waste was concentrated in five categories, each with reductions of more than 100,000 tonnes:

- home-made and pre-prepared meals
- bakery
- drink
- fresh fruit
- dairy and eggs

For other categories, there were either smaller reductions (such as fresh vegetables and salad) or very little change (such as meat and fish).²¹

The variance across foodstuffs is likely to be the result of a number of factors. For example, the very small reduction in meat and fish wasted is likely to be a result of people being much more risk averse to eating meat and fish past their sell by date than vegetables, and the higher value of meat and fish.

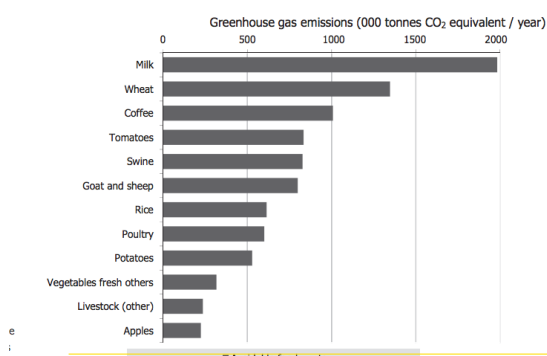
WRAP have indicated that all food groups still show enormous potential for improvement for items that have already shown reduction.

iii. Food type – variance in carbon footprint

WRAP cites milk, wheat and coffee as the items with the largest carbon footprint (Diagram 16).²² According to UN data, the major contributors to the carbon footprint of food wastage are cereals (34%), followed by meat (21%) and vegetables (21%). Products of animal origin account altogether for about 33% of total carbon footprint, whereas their contribution to food wastage volumes is only 15% (Diagram 17).²³

Diagram 16: Food and drink items with largest carbon footprint

Quested, T., Parry, A., Eastel, S. & Swannell, R. (2011) Food and drink from households in the UK, Nutrition Bulletin, 36, 460–467

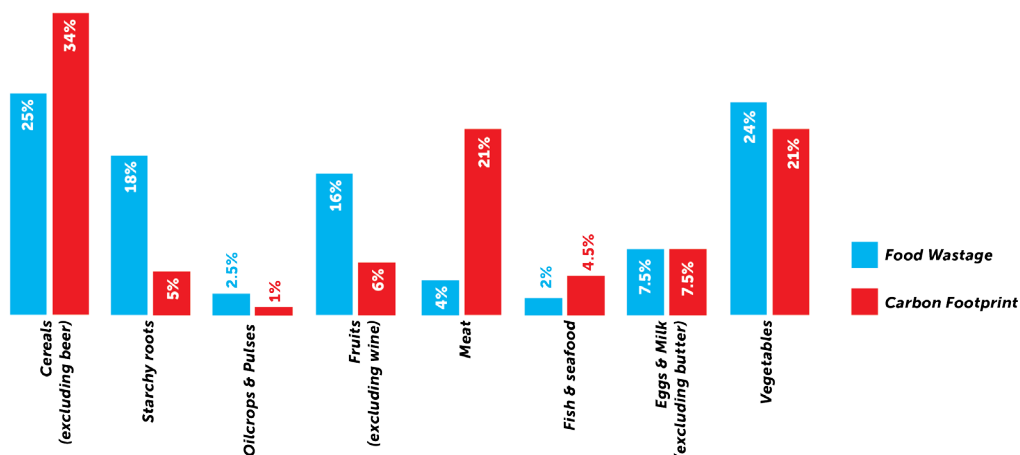


²⁰ w ²¹ ibid ²² Quested, T., Parry, A., Eastel, S. & Swannell, R. (2011) Food and drink from households in the UK, Nutrition Bulletin, 36, 460–467 ²³ United Nations Food and Agriculture Organisation (FAO) (2013) Food wastage footprint - Impacts on natural resources. Rome: FAO

Diagram 17: Contribution of each foodstuff to food wastage and carbon footprint

United Nations Food and Agriculture Organisation (FAO) (2013) Food waste footprint – Impacts on natural resources. Rome: FAO

Contribution of each commodity to food wastage and carbon footprint



Whilst there is variance in the quantity wasted, potential for reduction, and carbon footprint across the food types, it is not recommended to narrow the scope of a food waste intervention to a single food type. This risks reducing the potential impact too much. In addition, many of the behaviours that lead to food waste are consistent across food types, so taking an approach that aims to tackle food wasting behaviours more generally can be seen to have a greater impact.

b: Narrowing down the scope by audience

However there is a clear case for narrowing down scope by audience type.

As discussed in Section 2: Understanding the issue, the social context in which decisions are made is very important.

Crucially, context varies greatly from socio-demographic group to group. To date, WRAP has done limited work that targets specific audiences, yet they acknowledge there are “important distinctions between the aggregated, headline findings which apply to the population as a whole and specific socio-demographic groups.”²⁴ The three groups identified as the biggest food wasters – families with young children, young professionals and social renters – all operate in very different environments with different social pressures and as a result display different behaviour. Young professionals, for example, are more likely than the other two groups to be tempted by special offers in store but less likely to be over-cautious over date labels. Families with young children conversely are much more cautious about date labels.²⁵

A more profound impact can be achieved if one focuses on a single target audience, and truly understands their pressures, meet their needs and harness what motivates them.

Narrowing down scope by audience has many benefits.

²⁴ Cox, J & Downing, P. (2007) Food behaviour consumer research: Quantitative Phase, Banbury: WRAP. Examples of initiatives targetting specific audiences include their work with the Woman Institute’s Lets Cook Local programme and the West London Love Food Hate Waste cookery classes, aimed at people leaving home for the first time and parents of young children ²⁵ Cox, J & Downing, P. (2007) Food behaviour consumer research: Quantitative Phase, Banbury: WRAP

Meet the waster: Families with young children

Profile

The largest audience that wastes the most food are families with children under 16, either working or at home parents. There are a number of reasons why it is fruitful to focus on them.

Families waste a lot of food

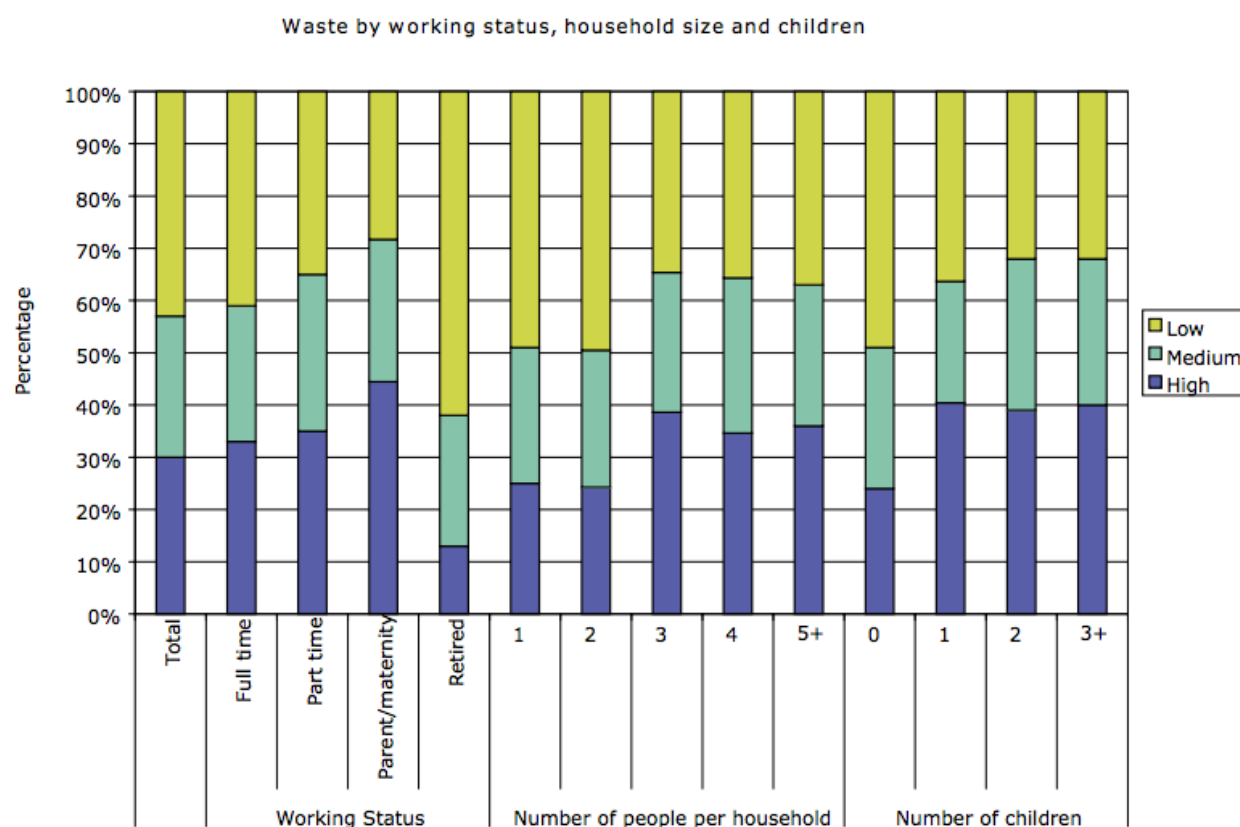
Families with young children are identified as the group that contains the highest quantity of 'high wasters' (45%) compared to young professionals (42%) and social renters (35%), the two next highest groups.

This is reflected in the amount of money households with children waste compared to households without children.

	Average household	Household with children
Cost per year	£470	£700 ²⁶

Diagram 18: Food waste by working status, household size and children

Cox, J & Downing, P. (2007) Food behaviour consumer research: Quantitative Phase, Banbury: WRAP



Families make up a high proportion of the population

Around 29% of the population fall into this category (Diagram 19).

Diagram 19: Breakdown of households by type

Data set from Families and Households, 2013 release, ONS: <http://www.ons.gov.uk/ons/rel/family-demography/families-and-households/2013/stb-families.html#tab-Further-information>

2013 Households by type of household and family	Thousands	%
One person household	7663	29
Two or more unrelated adults	842	3
Couples with no children	7,369	28
Families with only non-dependent children	2,754	10
Multi-family households	286	1
Couples with one or more dependent children ²⁷	7,500	21
Lone parents with one or more dependent children	1,791	7
Total Households	26414	100

Families are affected by lots of emotional triggers

As discussed below, there is an abundance of emotional pressures around parenting and growing up. The proliferation of these motivating factors make the recommended approach, which focuses on finding incentives for people to engage beyond an interest in the environment and carbon reduction, very feasible.

Families define the next generation

Whilst the environmental context throughout one's life does influence one's decisions around food waste behaviours, the formative nature of the childhood years shouldn't be ignored.

Habits can be formed at an early age and if we can change the food wasting behaviour of young children and establish new norms we can build habits for life.

Families are constantly at transition points

Research has shown that transition points are key times for effective behaviour change.²⁸ As children reach new ages and stages (birth, eating solids, feeding oneself, starting school, taking packed lunches, starting secondary school etc) parents are constantly reaching new points to change habits.

Families are a useful demographic to investigate across energy consumption

The more people in a household, the larger the amount of CO₂e that household emits, so as families tend to have more people in the household, they tend to consume more energy across most areas of domestic energy usage including heating, transport including cars, public transport, flights and indirect emissions from things such as food, alcohol, clothes, furnishings and medication.²⁹

Key social practices which families with young children think drive most of their waste

Families with young children think the following social practices drive most of their food waste (with primary behaviour which leads to food waste in brackets):

- Shopping (overbuying at supermarkets)
- Preparing (not eating leftovers or food that needs eating)
- Cooking (cooking too much food)
- Clearing (throwing away excess food)³⁰

Note, the four areas identified are Social Practices - activities that people recognise in their daily lives (with the key behaviours which lead to food waste named in brackets). These four areas have been extrapolated from Diagram 21 and its accompanying report.

²⁷ Dependent children are those living with their parent(s) and either (a) aged under 16, or (b) aged 16 to 18 in full-time education, excluding children aged 16 to 18 who have a spouse, partner or child living in the household. ²⁸ Making Habits Breaking Habits, Jeremy Dean ²⁹ Buchs, M. & Schnepf, S. V. (2013) UK Households' Carbon Footprint: A comparison of the association between household characteristics and emissions from home energy, transport and other goods and services. Southampton Statistical Sciences Research Institute (S3RI) Additional children in the home increases the emissions, but not as much as by the presence of an additional adult, as they have larger carbon footprints. For example, a household of three adults will have higher emissions than a household with a couple and a child. However households with multiple adults living together (not in a couple) represent only 3% of households in the UK so are not a significantly large group. Data set from Families and Households, 2013 release, ONS: <http://www.ons.gov.uk/ons/rel/family-demography/families-and-households/2013/stb-families.html#tab-Further-information> ³⁰ Cox, J & Downing, P. (2007) Food behaviour consumer research: Quantitative Phase, Banbury: WRAP

Diagram 21: Main drivers of food waste by target socio-demographic groups

Cox, J & Downing, P. (2007) Food behaviour consumer research: Quantitative Phase, Banbury: WRAP

	<i>Overall (1,658) %</i>	<i>Young pros (129) %</i>	<i>Young families (510) %</i>	<i>Social renters (345) %</i>
Shopping for food				
Tempted by special offers e.g. "bogof"	30	42	31	33
Trying to buy more fresh products	23	25	27	21
Buying too much when shopping	22	33	23	23
Tempted by "multi-packs"	22	27	25	24
Tempted by price reductions on products approaching their sell by date	19	22	22	20
Buying takeaways and not eating everything	15	23	17	19
Storing food				
Not eating foods that need to be eaten first	25	37	27	27
Doing a 'spring clean' of cupboards	24	20	23	20
Preparing and cooking food				
Food gone past its sell by date	34	29	40	31
Food visibly gone bad	30	30	30	29
Food not visibly bad but not worth risk	21	22	21	23
Food burnt/ruined during preparation	16	22	20	15
Not planning meals	13	20	15	16
Eating food and lifestyles				
Made too much food	27	35	30	26
Others in household didn't like it	22	15	46	26
Food didn't taste good	19	32	22	24
Not enough time/plans change	15	25	16	13

Social context which defines key social practices which lead to food waste

Through desk research including analysis of ethnographic studies looking at families and food waste, as well as interviews with the Love Food Hate Waste team at WRAP, we have mapped the social contexts which surround these four social practices, in Diagram 22. Note comments included are not direct quotes but represent elements of the social context identified in our research.³¹

Analysing these contexts, the main social pressures that surround these four social practices can be summarised as the need/desire to:

- feed family healthily and 'properly'
- minimise protests from family
- save money
- save time
- minimise effort

The last three of these needs correspond with the three primary influences on creating everyday, thrifty meals identified by Cappellini and Parsons. The first two are often opposing forces to one another.

³¹ Spaghetti Soup: The Complex World of Food Waste Behaviours, Authors: T.E. Quested, E. Marsh, D. Stunell, A.D. Parry, WRAP, 2013 A brief pre-history of food waste and the social sciences, Evans D., Campbell H., Murcott A., Practising thrift at dinnertime: mealtime leftovers, sacrifice and family membership, Cappellini B and Parsons E. Blaming the consumer – once again: the social and material contexts of everyday food waste practices in some English households, Evans D., University of Manchester, 2011 Binning, gifting and recovery: the conduits of disposal in household food consumption, Evans D. 2010 Beyond the Throwaway Society: Ordinary Domestic Practice and a Sociological Approach to Household Food Waste Evans D. 2011

Diagram 22: Social context which defines four key social practices which lead to food waste

Social Practice: **Shopping**

Primary behaviour which leads to food waste:

Over buying at supermarkets

I tend to buy a lot when I shop as I don't want to risk being without provisions for the family midweek.

As well as the healthy stuff, I buy back up ingredients for fail safe meals I know the family will eat

If I were to get my husband and kids to write a shopping list of what they wanted, and then cut it in half, I'd still be buying way too much

I buy loads fresh fruit and veg as I try to have healthy stuff in for the kids (which they may or may not eat!)

My kids are always putting extra things in the trolley

I'm definitely money conscious when I shop, so am often tempted by BOGOFs and multipacks

Social Practice: **Cooking**

Primary behaviour which leads to food waste:

Cooking too much

I just guess how much rice/pasta to use, I don't have time to measure and figure it'll get eaten

Often I'll make loads as I'm cooking when either I'm hungry or the kids are starving



Social Practice: **Preparing**

Primary behaviours which leads to food waste:

Not eating leftovers, or food that needs eating

My lot like tried and tested recipes, not new things I've concocted to use up old ingredients

I don't like eating the same thing again and again so even if have leftovers in the fridge I'd rather something new

Often I'm cooking when either I'm hungry or the kids are starving so we'll eat whatever's quick

I feel guilty when I have to mix proper meals with easier solutions

My kids wouldn't want leftovers for their packed lunch – How would it look for them to have cold pasta whilst the others have proper pack ups? They want branded things in packets

We might have leftovers in the fridge, or the ingredients for a meal I thought we'd want when I went shopping, but when it comes round to cooking, we often change our minds. The kids want something else and its easier to go with them

If it was just me, I would use up leftover ingredients in a simple meal, but that won't do for the kids

Leftovers aren't really a 'proper meal' for the family, it's better to cook something new

I've got to be so careful with food poisoning. It's a disaster when the kids or me or my husband are sick. I wouldn't risk food that might be past it

My kids would rather not eat than eat something they don't like

Social Practice: **Clearing**

Primary behaviours which leads to food waste:

Throwing away excess food

My kids are fussy, so I have to cook something different for them. It'd be easier if they just had what I was making for me and my husband as we could eat up what they didn't eat, but they only like simple food

Loads of food is left on my kid's plates at the end of meals but no one is going to want to eat that after they have pushed it around

Meal times are manic, so it's easier to just dish the same for everyone, even if they have a smaller appetite

The children change their mind on type of food they want to eat. They say one thing, I make it and then want something else, so stuff is wasted

At the end of meals we are thinking about a million other things than putting things in tupperware

If the kids haven't liked something I've cooked, I'm not going to keep it and hope they'll want it reheated

Wider profile of audience

In addition to the above social pressures which surround the four key social practices which lead to food waste, the following wider pressures felt by parents in families with young children should be understood. This has been drawn from an analysis of parenting magazines, online forums and literature advising parents.

1. The pressure of how you appear to other people

Looking like you are doing the right thing for your child

- AIBU – “*am I being unreasonable?*” is a commonly used acronym on mumsnet – people are very worried about what others think of them. YANBU also exists – “*you are not being unreasonable*”.

Looking like you are finding parenting easy and are doing it without a struggle

- A Made for Mums article on “*10 things mums don't admit they do*” says, “*A quick cleaning blitz can be more tempting than hours of elbow grease, but you also like receiving compliments on being a real dust-busting Mrs Sheen.*”³²

Maintaining your physical appearance and style.

- In some magazines they show how stylish some celebrity mothers are. “*Just take a look at Stella's immaculate tailoring, SJP's achingly cool mismatched knits or Liv Tyler's 'it' dress making an appearance.... the playground is quickly becoming the place to showcase your latest purchase or styling techniques.*”³³
- There are a plethora of sites on how to lose weight after birth or with kids
- Items mothers own should also be stylish, according to many sources. For example, a feature in the Guardian parents and parenting section showcases a selection of stylish baby changing bags, including expensive designer ones. The article explains: “*Having had your life turned upside down quite enough, you might just want a bag that still looks like something a sane adult would choose to buy...*”³⁴

2. The pressure to do what is best for your child

This could be to do with nutrition, wellbeing or their personal development.

Nutrition

- “*Sending your children off to school with a delicious packed lunch is one of the best things you can do to help them have a great day. Every new term we have great intentions to create delicious, perfectly balanced lunches, but all too often lack of time and ideas have us falling back on the same foods every day. As a multi-tasking mum, it's tempting to fill a couple of lunch box spaces with an easy treat that children love. But ready-made foods can be highly processed with high levels of salt, sugar and saturated fat. Not only is that bad for your children's health, it's also guaranteed to cause a mid-afternoon slump that'll have them struggling to concentrate on their lessons. Making your own lunch gives you the peace of mind that your children are eating the food they need to keep them healthy, full of energy and help them learn.*” Made for Mum's³⁵
- One lady describes her experience of trying to feed her baby correctly, but her baby was a fussy eater: “*My baby ate fruit purees and yogurts without a problem but gagged and spat out all savouries. I was worried he wasn't getting the right nutrients and felt like a really bad mum because sometimes when I was giving him his lunch (some sort of dessert), people would ask, 'What did he have to start?' Every day I'd try different savoury flavours at different temperatures and textures but he still gagged on everything.*”³⁶

Education of child/development

- Whether it is ok to let your children use an ipad, for example, is a constant topic on Mumsnet.

Mother 1: “*Ds has some minor special needs and my friend was telling me yesterday Ipad apps would be really beneficial to help him to write – he has no interest whatsoever in sitting down with pen/paper and doing it so I can imagine it could help, but still I don't feel comfortable with the idea. AIBU?*”

Mother 2 reply: “*Really annoys me how many parents give their kids expensive gadgets. What kids need is time. And the ability to entertain themselves through imaginative play!*”³⁷

³² <http://www.madeformums.com/for-mums-and-dads/10-things-mums-dont-admit-they-do/23434-4.html#historysub> ³³ <http://www.madeformums.com/schoolchild-life/celebrity-mums-do-the-school-run/9897.html> ³⁴ <http://www.theguardian.com/lifeandstyle/gallery/2011/sep/05/parents-and-parenting-family/?picture=378684552&index=0> ³⁵ <http://www.madeformums.com/schoolchild-health/how-to-pack-a-healthy-lunch-box-every-day/17657.html> ³⁶ <http://www.madeformums.com/feeding-at-7-9-months/5-common-weaning-problems---sorted/787.html> ³⁷ http://www.mumsnet.com/Talk/am_i_being_unreasonable/a1738460-To-not-want-ds-to-get-an-ipad

3. The internal pressure of wanting to do what you want to do

Spending time by yourself

- *"What do you do if your little one wants to play superheroes but you're longing to curl up with a book and a cuppa? 'I lie and tell the little ones it's 'late' and 'past their bedtime.' Sadly, this will only last until they can tell the time' – Michala Dominey, via Facebook," Made for Mums article.³⁸*

Spending time with a partner

- Lots of articles on how to keep the relationship alive post-children, where they advise to book in dates with each other to make sure the time is kept free.
- *"Remember that being in bed together doesn't have to be at the end of the day; by then, sleep may be your only fantasy. And you don't have to wait for bedtime. Slip between those sheets as soon as your children's eyes close, no matter how early it may be and enjoy the decadence!"³⁹*

Going back to work after having children

- An important part of this is being able to feel like an adult again and not a parent weighed off against the guilt of handing your children over to childcare: *"ds will be 5.5 months when I go back to work part time in feb. We need the money and I need the brain food. We have a wonderful childminder sorted and are doing settling in days. Ds currently lasts 40 mins without me before he starts to scream inconsolably. Cheers up as soon as I pick him up. I am consumed with guilt and feel so selfish for doing this. He is also a terrible sleeper and I feel he's worse on the childminder days. I feel so dreadful."* Mumsnet post⁴⁰

4. Pressure to do what is best financially

- On parenting sites there is a lot of discussion around how to save money, what financial products to use, what shops to go to etc. For example, Mumsnet had a whole section dedicated to the credit crunch, with questions on how best to budget, where to eat cheaply and how to reduce energy costs. Similarly, Netmum.com had a page dedicated to budgeting, including sections on paying for childcare and budgeting for a baby. They also had a chat forum for *"Money, savings and entitlements"* and another for *"Money saving, budgeting and bargains"* which included posts on budgeting and supermarket vouchers.

5. Pressure to do what is easiest/most practical

Caving into demands

- *"I do model healthy eating myself... [but] I've gotten into the bad habit of giving the youngest crappy foods because admittedly I can't deal with the battle... I know that there really is no excuse. I just seem to cave in all the time."* Mumsnet post⁴¹
- *"My oldest is 8 and many of her classmates have mobiles. She feels left out – not being in the texting loop. We did say she could have one at highschool – 11yrs, but may get one earlier."* Made for Mums post⁴²
- *"I frequently find myself caving into ppl's demands. I find it tiring to argue and am quite malleable. My DH [dear husband] is not like that, quite the reverse. There is absolutely no way he would be going along with an arrangement that he was unhappy with. He just says that he is not at all concerned by what others think."* Mumsnet post⁴³

Feeling constantly tired, over worked and pulled in too many directions.

- *"Gearing up for the busiest 10 days of my year...Naomi's party, 2 nativity plays, Lucas' birthday, Naomi's birthday, end of term, flight to London and Christmas...if we make it to Christmas Day having turned up in the right places, with the right costumes/cakes/ gifts/suitcases, I will be astounded!"* Facebook post from mother of two.⁴⁴

Tension between pressures

These pressures can often be in opposition to each other causing tension and guilt for parents.

Tension between wanting to spend time by themselves vs wanting the best for their child's development:

"Trouble is ds [dear son] still wakes up multiple times a night – 3 would be average, but on bad nights it can be even more... To properly enjoy this evening I'd need to go out by about half six and might not be back til 11 or 12.... I feel like I'm taking a bit of a risk here. I think DH [dear husband] would be ok putting him to bed,as

³⁸ <http://www.madeformums.com/for-mums-and-dads/10-things-mums-dont-admit-they-do/23434-7.html> ³⁹ <http://www.juniormagazine.co.uk/relationships/how-to-reignite-the-passion-after-having-children/1611.html> ⁴⁰ <http://www.mumsnet.com/Talk/parenting/a1936359-Childcare-guilt> ⁴¹ <http://www.mumsnet.com/Talk/parenting/a1575030-Daughter-very-overweight> ⁴² <http://www.madeformums.com/forum/your-say/talkback-50-of-5-9-year-olds-have-mobiles/14345.html> ⁴³ http://webcache.googleusercontent.com/search?q=cache:http://www.mumsnet.com/Talk/am_i_being_unreasonable/a1823740-To-advise-you-all-to-NEVER-get-tied-into-going-somewhere-every-week-Forever ⁴⁴ <http://f.cl.ly/items/2O232l3P2e2r2l1f0w45/facebookpost.png>

long as I've offered milk before I go, but if I'm not there at the first waking he is capable of screaming for hours until I come back. I just don't want to do that to him. But I'm also starting to feel quite stifled by 17 months of 24-hour mummy duty. Believe it or not I had quite a good job 18 months ago but that feels like another world now. I just want to get some of myself back." Mumsnet post⁴⁵

"I'm a bit worried that I'm asking for criticism with this post! But I'd be interested to know how much TV your kids watch. Before I had DS (age 3) I was determined that he would watch very little TV – ha ha!! So at the moment I reckon he watches 3–4 hours a day. He's an early riser – up around 530 – and tbh I'm like the walking dead at that time in the morning so sticking a DVD on is just an easy way of entertaining him. But he probably watches TV for 2 hours in the morning, then another 30 mins – 1 hour at lunchtime, and 1 hour before bed. I'm a SAHM [stay at home mum] with DH working long hours so its just me and DS for 12 hours a day. I love being at home with him but it's hard keeping him entertained all day and the TV is my fallback option!! But i am concerned by the stuff in the press about TV affecting behaviour etc." ⁴⁶

Tension between wanting the best for their child's development/health and wanting what is best for finances

Mumsnet post responding to question: How much do you spend on food shopping each week? "I'm ashamed to say but probably about £70. 3 of us (me and 2 children). Includes lunches for me but not children. I don't budget and buy massive amounts of soft fruit/berries, branded wraps, mini chicken fillets, tuna steak and frozen yogurt instead of apples, bread, mince and value ice cream. Obsession with fat and sugar far outweighs any concern about money. I do feel guilty though. I'm also pregnant and bills will probably go up to nearly £90 a week after that!"⁴⁷

General pressures related to food waste pressures

We can see that the general social pressures felt by parents are very close to the social pressures around the four key social practices that lead to food waste. Their correlation can be mapped as follows:

Diagram 23: Mapping social pressures around social practices that lead to food waste onto general social pressures felt by parents



⁴⁵ http://www.mumsnet.com/Talk/what_would_you_do/a1930281-Should-I-go-out-for-the-evening-leaving-v-clingy-toddler ⁴⁶ <http://www.mumsnet.com/Talk/parenting/a1717910-How-much-TV-do-your-DC-watch> ⁴⁷ http://www.mumsnet.com/Talk/am_i_being_unreasonable/1935860-To-ask-what-you-spend-at-the-supermarket-on-average-each-week

In designing an intervention that reduces domestic waste amongst families with young children, there is, evidence to focus on one or more of the following four key Social Practices

1 Shopping

deciding what to buy in supermarket

2 Preparing

deciding what to cook for next meal

3 Cooking

making the right amount

4 Clearing

deciding what to do when clearing table

Any intervention should aim to relieve the social pressures that surround these four social practices. These include the pressure/desire to

minimise protests from family

feed family healthily and 'properly'

save money

save time

minimise effort

It should also aim to relieve some of the additional social pressures facing parents of children with young children. These include:

The pressure of how you appear to other people

The pressure to do what is best for your child

The internal pressure of wanting to do what you want to do

Pressure to do what is best financially

Pressure to do what is easiest/most practical