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A Welsh survey assessing the effect of COVID-19 on lifestyle behaviours that impact the environment: waves 1 and 2

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A Welsh survey assessing the effect of COVID-19 on lifestyle behaviours that impact the environment – waves 1 and 2

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Glossary

Acronym/Key word	Definition
CAST	Centre for Climate Change and Social Transformations.
Main shop	A shop to purchase the bulk of items needed for a particular time period, for example weekly.
Median	The middle value of a sorted list, in which half the responses are above the median and half are below. It provides a 'typical value' because it is not skewed by a small proportion of extreme values.
Mean	The average response in a set of responses, which is calculated by summing all values provided in the responses and dividing this by the number of responses (i.e. the number of values).
Time point A	Relates to the time before 23rd March 2020. Data was collected between 22nd and 26th June 2020 and participants were asked to think back to their behaviours prior to 23rd March 2020 and the start of the first UK-wide lockdown.
Time point B	Data collected between 22nd and 26th June 2020 which asked about current behaviours (in June 2020).
Time point C	Data collected between 23rd October 2020 and 9th November 2020, which asked about current behaviours (in October/November 2020).
Top-up shop	A shop to purchase a small number of items, which may have been forgotten or have run out since doing a main shop.
Local Chain Supermarket	Smaller supermarkets of UK supermarket chains, which tend to be located in town or city centres, high streets or close to housing estates and developments.

1. Introduction/Background

1.1 The COVID-19 pandemic, and the measures put in place to tackle it, have had profound impacts on people's day-to-day behaviours[1]. The scale of disruption is such that this very challenging period may provide a rare and important opportunity for people to relinquish unsustainable ways of living and adopt more environmentally beneficial habits. For politicians and policy makers to understand how they might best support a widespread shift to low-carbon living, it is necessary to assess how behaviours, attitudes and intentions have changed since the beginning of the pandemic, and how they are continuing to change over time.

1.2 To that end, in May 2020, the Welsh Government commissioned the Centre for Climate Change and Social Transformations (CAST) and YouGov to undertake a survey of people living in Wales. It aimed to examine the effects of COVID-19 on a range of lifestyle-related behaviours, which have environmental impacts; respondents' environmental attitudes and future behavioural intentions were also captured, as were responses to various measures of well-being. The survey design work was undertaken principally by Professor Lorraine Whitmarsh of CAST, with additional input from Knowledge and Analytical Services and the Environment and Rural Affairs Strategic Evidence Team in the Welsh Government – see Annex A for survey questions. YouGov was responsible for collecting the data which was done using their online panel. Further detail on the panel is provided in the methodology.

1.3 This report focuses on the first two waves of data collected. The first wave was collected in June 2020 during the first UK-wide lockdown[2]; respondents were asked to answer questions relating to various behaviours at that time (i.e., during the lockdown) as well as being asked about what they used to do before the first UK-wide lockdown began on 23rd March 2020.

1.4 The second wave of data was collected in November 2020. Respondents were asked the same series of questions, with the intention of assessing the extent to which behaviours had changed since the first wave of data collection in June 2020

[1] Coronavirus and the social impacts on behaviours during different lockdown periods, Great Britain

[2] At the time of data collection between 22nd-26th June 2020 all non-essential retail business and childcare facilities had re-opened. However, schools had not yet opened. The 'stay local' rule was still in place.

to identify whether these had been maintained or had regressed after people had enjoyed a period of greater freedom. This second wave of data occurred at the tail end of the 'firebreak' lockdown in Wales, which ran from 23 October 2020 to 9 November 2020[3]. Respondents were either in, or were just emerging from, another period of lockdown restrictions at the time at which they completed the survey.

1.5 A further survey wave of data collection took place in July 2021. This data will be published in a separate report.

1.6 This report lays out the findings from an analysis of changes in behaviour, attitudes and intentions at the time of the first wave of data collection in June 2020 compared to the second wave of data collection in November 2020. It will also, where relevant, set this in the context of people's self-reported pre-pandemic behaviours and attitudes for comparison that were reported retrospectively within the first data collection wave. The analysis was undertaken by Christianne Tipping, a PhD student within CAST. The report covers a range of areas including:

- Travel
- Diet
- Food waste
- Shopping
- Energy consumption
- Water use
- Leisure
- Well-being
- Pro-environmental behaviours
- Support for certain policy approaches

[3] At the start of the data collection period during the firebreak lockdown the following rules were in place: People were required stay at home, except for very limited purposes, and were not allowed to visit or meet people they did not live with. Certain businesses and venues, including bars, restaurants and most shops were closed. Primary schools and childcare settings remained open; secondary schools were open for children in years 7 and 8 only.
Following the end of the firebreak lockdown on the 9th November 2020, the following rules were in place: two households were able to form an extended household (or bubble); up to 15 people could take part in organised events indoors and up to 30 people could attend event outdoors; and all premises that were closed reopened.

1.7 Chapter 2 summarises the methodology approach taken. It explains the data collection approach and the different data collection waves in more detail. Caveats relating to this approach are also set out in chapter 2.

1.8 Chapter 3 covers findings related to participants attitudes towards climate change and green recovery.

1.9 Chapter 4 summarises findings related to participants' travel behaviours, including their intention to travel in the future. This chapter includes information on participants' working and travel arrangements at the time of the survey, experience of and future intentions to work from home, use of virtual technologies and future intentions regarding public transport.

1.10 Chapter 5 covers food purchasing, dietary choices and waste. This included responses to questions related to choice of outlets for weekly and top-up food shops, the consumption of red meat, white meat, and fish or seafood and food waste.

1.11 Chapter 6 relates to participants' shopping behaviour, in particular, purchases of food from restaurants, canteens and takeaways, large or expensive purchases and other spending behaviour.

1.12 Chapter 7 covers energy-related behaviours, concerns and intentions. This included questions about energy use, concerns around paying for energy bills and current or future adoption of technologies associated with improved energy efficiency or reduced resource use.

1.13 Chapter 8 relates to water use, specifically the number of baths and showers taken and the length of time spent in the shower.

1.14 Chapter 9 summarises the findings related to leisure. This included questions around the length of time gardening, spending time in outdoor spaces, doing exercise and sport, shopping for non-food items and time spent on creative hobbies.

1.15 Chapter 10 covers pro-environmental behaviours, specifically how many times per month participants had undertaken particular behaviours.

1.16 Chapter 11 outlines attitudes towards policy approaches. In particular, this chapter covers attitudes to prioritising climate change during the economic recovery post-

pandemic or prioritising economic recovery even if it meant taking decisions that are bad for the environment.

1.17 Chapter 12 summarises respondents subjective well-being using the four personal well-being questions (ONS4) developed by the Office of National Statistics. The chapter also covers how stressful, if at all, the COVID pandemic and associated restrictions has been on participants.

1.18 Chapter 13 covers aspects of participants' lifestyle or behaviour that had changed since the COVID-19 restrictions were imposed and whether they would like to maintain these changes once restrictions were removed.

2. Methodology

Data collection waves

2.1 **Wave 1:** Data was collected during the period 22-26 June 2020. During this wave of data collection participants were asked what behaviours they were engaging in at the time of data collection, and to think back to their behaviours before the first lockdown began on 23rd March 2020. Throughout this report, the behaviours referring to before the 23rd March 2020 will be referred to as time point A. The questions relating to the time of the data collection during this survey wave will be referred to as time point B (i.e. June 2020).

2.2 **Wave 2:** Data was collected during the period 6-23 November 2020. At this point, questions were only asked about what behaviours participants were engaging in at the time of this data collection. This time point is referred to as time point C throughout the report.

Data Collection

2.3 This survey was administered through the YouGov online panel and involved re-contacting participants. YouGov runs a voluntary panel in which participants sign up and participate in online surveys in return for 'points' which can then be redeemed as a financial reward. For this research only YouGov panel participants who reported living in Wales were invited to participate. The survey was made available in both English and Welsh.

2.4 The sampling for the survey was undertaken by YouGov via their existing online panel. A quota sample was used to generate a sample that would be representative of the Welsh adult population (aged 18 and over). For data on the target and achieved sample, please see Annex B. The first wave of data collection, collected during the period 22-26 June 2020, yielded a usable sample of 1,108 respondents.

2.5 The same respondents were contacted for the second wave of data collection which took place during the period 6-23 November. One participant was removed from the data set as they had not responded to the first wave of the survey and, therefore, there was no baseline against which to assess their responses. This approach yielded a useable sample size of 898 which equated to 81% of the original sample.

2.6 The gender split of the sample was 42% males and 58% female, and the mean age was 54.3 years, with an age range of 18-90 years. For both waves of data collection, YouGov provided a standard weighting variable which could be applied during analysis to make the sample demographically and politically representative[4] of the Welsh population. The weighting variable was calculated using age, gender, education, social grade, political attention, region, plus votes in the 2019 General Election and 2016 EU Referendum.

Data Analysis

2.7 In this report, descriptive statistics and percentage changes are reported after the standard weighting variable has been applied, which allows the researcher to infer changes occurring at the population level.

2.8 Throughout this report, where the number of respondents to a particular question is less than the total number of responses (898) – either because the question was asked of particular sub-groups or because there were skipped or missing responses – the revised sample size (N) will be given.

2.9 In the wave 2 survey, respondents were asked two questions that allowed free text entry responses. The resulting data were analysed thematically within an Excel spreadsheet. Responses were clustered into categories based on similarity. Multi-part responses containing elements belonging in different categories were split and each part placed into the relevant category. To reduce the large number of categories that had been generated after the initial allocation of responses, smaller categories were aggregated under common themes. This was an iterative process which eventually yielded a more manageable and more useful set of categories. As many respondents offered multi-part responses to these questions in wave 2, the total of the various percentages quoted in the report will exceed 100%

[4] You Gov apply this weighting as standard. No analysis of political opinion was undertaken as part of this research.

Caveats

2.10 During the first wave of data collection in June 2020 participants were asked to retrospectively recall what their daily behaviours were before March 23rd 2020. This retrospective recall of behaviours is likely to contain some inaccuracies. However, given the unexpected nature of the pandemic, this remains the only way to collect data on the pre-pandemic behaviours of this sample.

2.11 Due to the nature of data collection platform, YouGov, this may have caused some bias in the responses provided. Firstly, because participants sign up to the platform in order to participate this is likely result in a self-selection bias. Secondly, due to the online nature of the survey, the findings may not be representative of those who are digitally excluded.

2.12 Due to the nature of the questions on the topic of environmental behaviours and climate change it is like there may also be some social desirability bias in responses to these questions.

3. Findings: Climate change attitudes

3.1 This chapter covers findings from a series of questions participants were asked relating to attitudes toward climate change and green recovery.

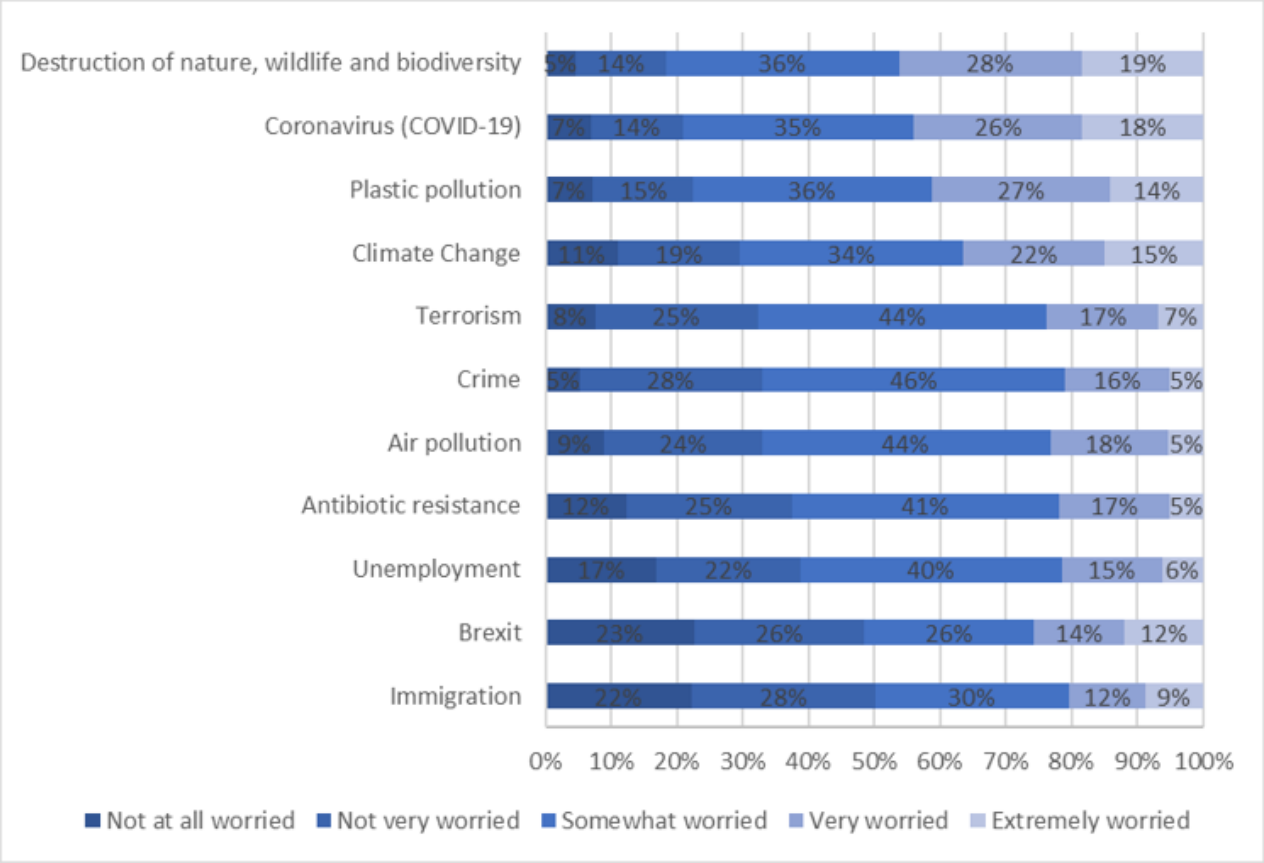
3.2 Respondents were asked how worried they were about various environmental and social issues and were given on a five-point scale ranging from ‘not at all worried’ to ‘extremely worried’. The results are shown in Figure 1.

3.3 At time point B, COVID-19 had been the issue causing greatest concern, followed by destruction of nature and wildlife, plastic pollution, and climate change. These four issues also remained at the top of the table at time point C. However, destruction of nature, wildlife and biodiversity had overtaken COVID-19 as the issue of greatest concern, with 46% of respondents indicating that they were very or extremely worried about the destruction of nature compared with 41% at time point B.

3.4 Although COVID-19 was no longer the issue of greatest concern at time point C, concern about COVID-19 had increased between time point B and time point C, with 44% of respondents now very or extremely worried about it compared with 43% at time point B. Similarly, concern about climate change also increased at time point C, with 37% of respondents reporting that they were very or extremely worried about this issue compared with 34% at time point B.

3.5 Given the period during which the data at time point C was collected (November 2020), it might have been anticipated that concern about Brexit would have increased due to the UK being due to leave the EU on 31st December 2020. Findings show that the proportion of respondents saying that they were very or extremely worried about this issue did increase slightly from 26% to 29%.

Figure 1: Level of concern about various environmental and social issues (Time Point C)



N= 897. Base = All respondents. Survey Question= How worried are you personally about the following issues at present?

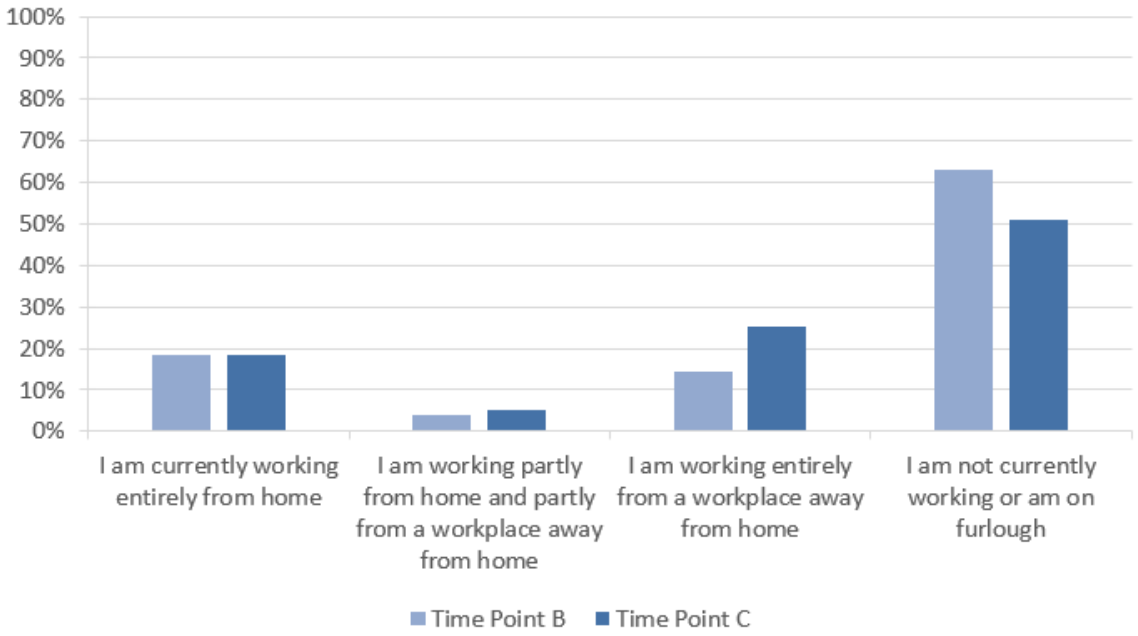
3.6 At time point B, 65% of respondents felt that climate change needed to be addressed with a high or extremely high level of urgency. This proportion decreased to 61% at time point C.

4. Findings: Travel Behaviours and Intentions

4.1 This chapter covers the responses to questions asked relating to individuals travel behaviours and their future intentions relating to travel.

4.2 Before being presented with a series of questions related to travel, respondents were asked about their current working arrangements. As can be seen in Figure 2 below, there was no change in the proportion of people working entirely from home (18% at time point B and time point C). The proportion of people not working or on furlough had reduced (from 63% to 51%) and this was reflected in an increase in the number of people working entirely from a workplace away from home (14% to 25%). A smaller increase can be seen in the number of people working partly from home and partly at a workplace away from home between the two time points (4% to 5%).

Figure 2: Changes in people's workplace arrangements



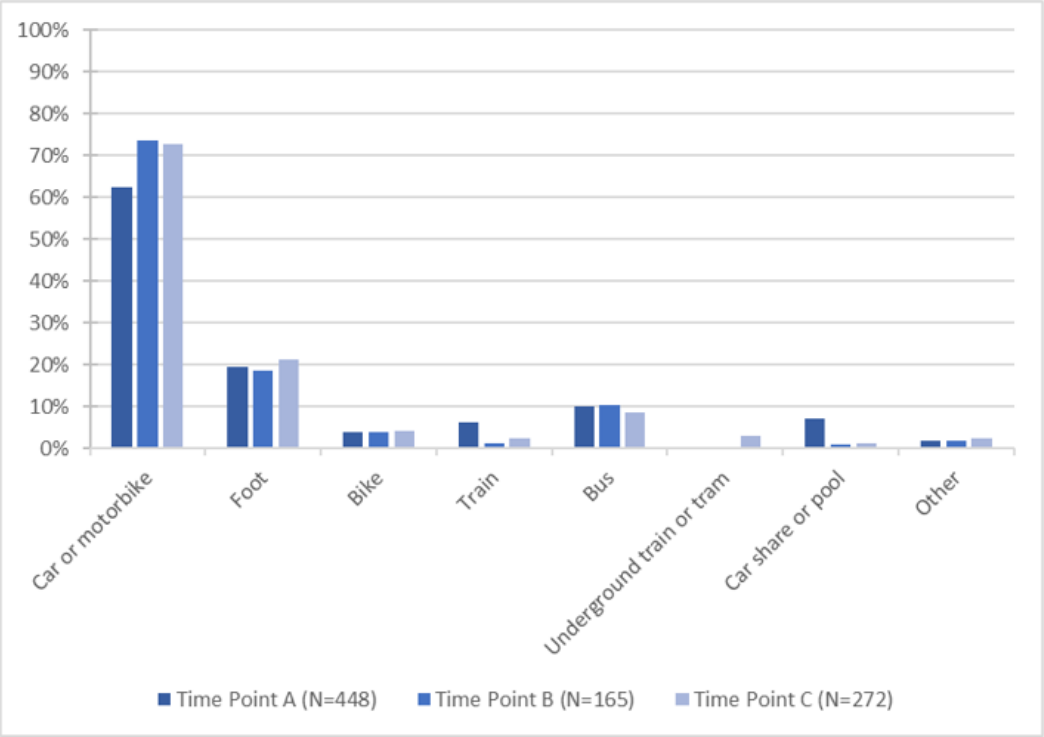
N= 897. Base = All respondents. Survey Question= First, a few questions about your current work-related travel, which of these applies to you?

4.3 During the first wave of data collection, respondents were asked about the frequency of homeworking and their typical home to work travel mode before the lockdown restrictions began on the 23rd March 2020 (time point A) and during the

first lockdown (time point B). There was a large reduction in the number of people working away from home part or all of the time – and therefore travelling to work - with respondent numbers dropping from 448 at time point A to 165 at time point B. As Figure 3 illustrates, between time point A and time point B there was a marked increase in the percentage of people travelling by car or motorbike (from 62% to 74%); a reduction in people car-sharing (7% to 1%), and a reduction in the number of people travelling by train (6% to 1%). These changes in behaviour are likely as a result on the Welsh Government's 'essential travel' restriction in place at time point B. Despite this, however, there was little difference in bus use between time point A and time point B.

4.4 At time point C, the respondent numbers for this question increased to 272, which is anticipated to be a result of more people travelling for work again. Between time point B and time point C there were small decreases of 1 percentage point in car use, and 2 percentage points in the number of people using the bus, and small increases in all of the other travel mode categories. There was also a 3-percentage point increase in people walking, and a 3-percentage point increase in people choosing to use an underground train or tram.

Figure 3: Home to work travel mode choice



Time point A N = 448. Time point B N = 165. Time point C N = 272. Base = Respondents who worked partly from home and partly from a workplace or worked entirely from a workplace away from home. Survey Question= In what ways do you travel to work?

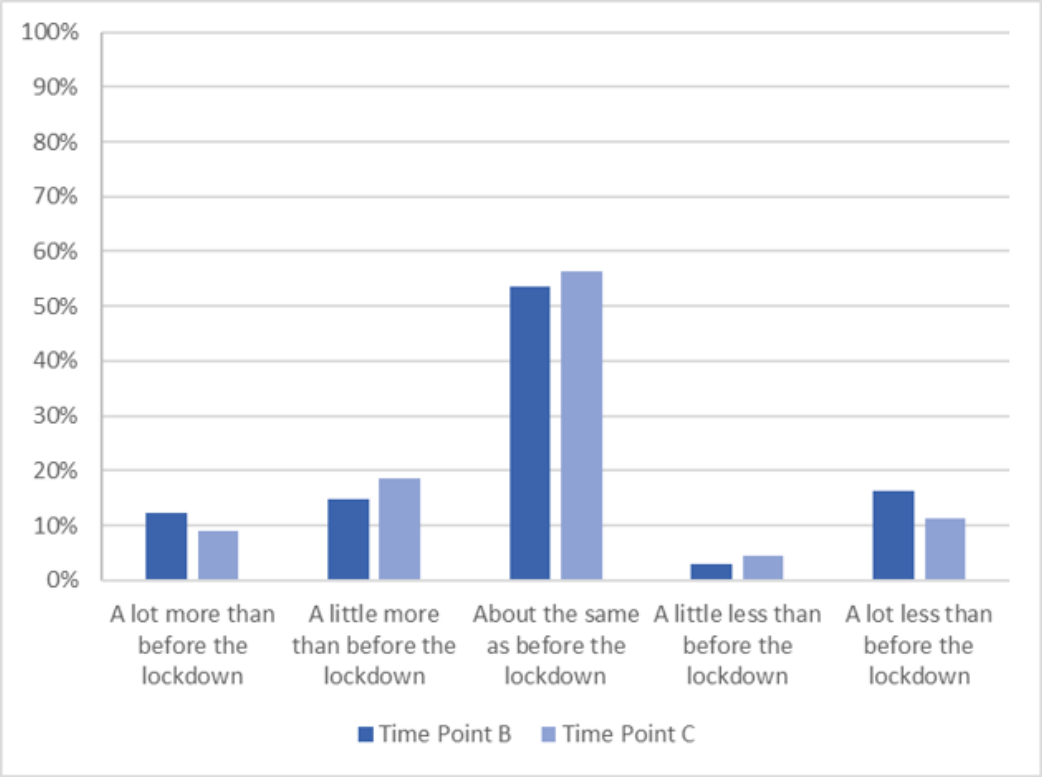
4.5 An increase in the amount of home working has the potential to bring about a change in work-related travel behaviour in the longer term. Respondents who were working entirely or partly from home (N=208 at time point B, N=215 at time point C) were asked to rate their experience of doing so on a numerical scale of 0-7 where 0 is very negative and 7 is very positive. For ease of comparison, the responses were aggregated into three categories: positive or very positive (5-7 on the scale); neutral (3-4 on the scale); and negative or very negative (0-2 on the scale).

4.6 There were some percentage changes between responses given during time point B and time point C. The vast majority of respondents (73% in time point C; 68% in time point B) rated their experience of working from home as positive or very positive, while 21% were 'neutral' at time point C (down from 25% in time point B), and 6% rated their experience as negative or very negative at time point C (a slight reduction from 7% in time point B).

4.7 All respondents were asked about their future intentions to work from home after all coronavirus restrictions have been removed. At time point B, 23% of people said they intended to work from home a lot less or a little less than they had before the lockdown restrictions were put in place (time point A).This decreased to 19% in time point C, suggesting that some people had become less averse to home working. This change was accompanied by an increase in the number of people who said that they intended to work from home about the same amount as before the lockdown (from 58% at time point B to 63% at time point C). While the percentage of respondents who intended to work from home a little or a lot more than before the lockdown restrictions were put in place (time point A) remained static at 18%.

4.8 The use of virtual technologies instead of meeting in person has the potential to reduce travel in the future, and respondents were asked about their intentions to make use of online platforms for various purposes once all restrictions have been lifted. The proportion of people who intended to have online meetings a little or a lot more than before lockdown remained largely the same (27% at time point B and 28% in time point C) – see Figure 4. The number who intended to have them a lot or a little less than before lockdown decreased from 19% to 16% from time point B to time point C. These changes may be due to respondents becoming less averse to the use of online platforms, or due to cultural changes in the use of these technologies.

Figure 4: Intention to have virtual/online instead of in-person meetings when coronavirus restrictions are lifted.



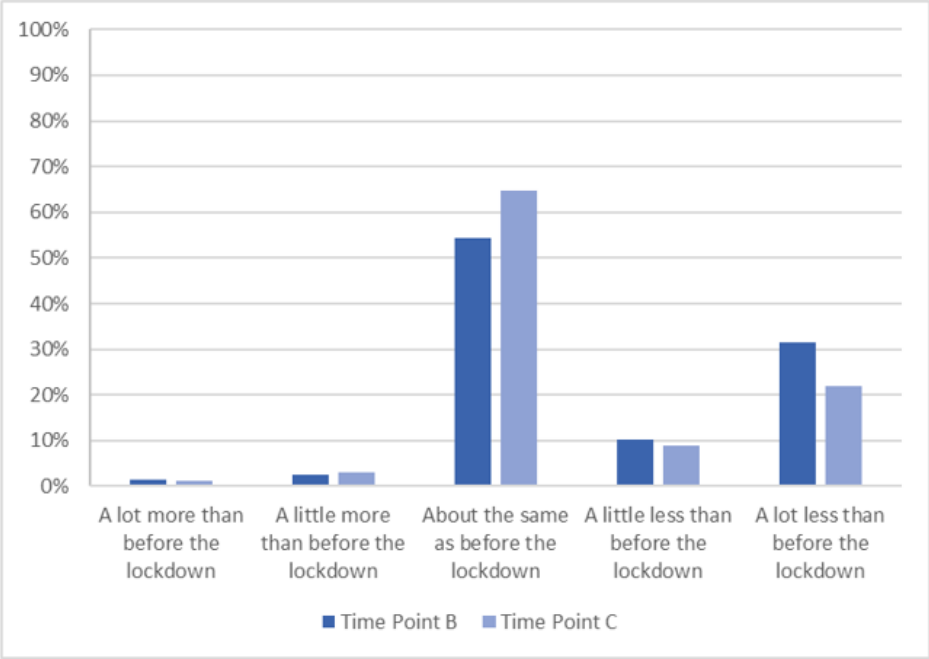
Time Point B N= 895. Time Point C N= 895. Base = All respondents.
Survey Question= When the coronavirus lockdown restrictions are removed do you intend to have virtual/online instead of in-person meetings?

4.9 However, it seems that this change in attitudes to online meetings does not apply to virtual socialising with friends and family. The proportion of people who intended to meet virtually with friends and family a little or a lot more than before lockdown decreased from 25% at time point B to 22% at time point C, while those intending to meet virtually a little or a lot less increased from 19% at time point B to 20% at time point C. Finally, the proportion of people who intended to have GP appointments online or by phone a little or a lot more once restrictions are lifted increased from 28% at time point B to 31%, at time point C. The proportion intending to have them a little or a lot less decreased from 17% at time point B to 14% at time point C, suggesting a slight shift towards increased take up in virtual GP appointments.

4.10 Respondents were asked about future intentions regarding their use of public transport (Figure 5) and flying for holiday or leisure purposes (Figure 6). At time

point B, 42% of respondents said they intended to use public transport a little less or a lot less than before the start of the lockdown restrictions. By time point C, this had reduced to 31% of respondents. During the same period, the proportion of people who intended to use public transport about the same as they did before lockdown increased from 54% to 65% between time point B and time point C. However the percentage of those intending to use public transport a little or a lot more remained the same at 4% at both time points B and C. This reduction in the percentage of people intending to use public transport less than before lockdown may be indicative of a reduction in people's anxiety about travelling on public transport. However, identifying the reason for this change is outside the scope of this research.

Figure 5: Intention to use public transport when coronavirus restrictions are removed

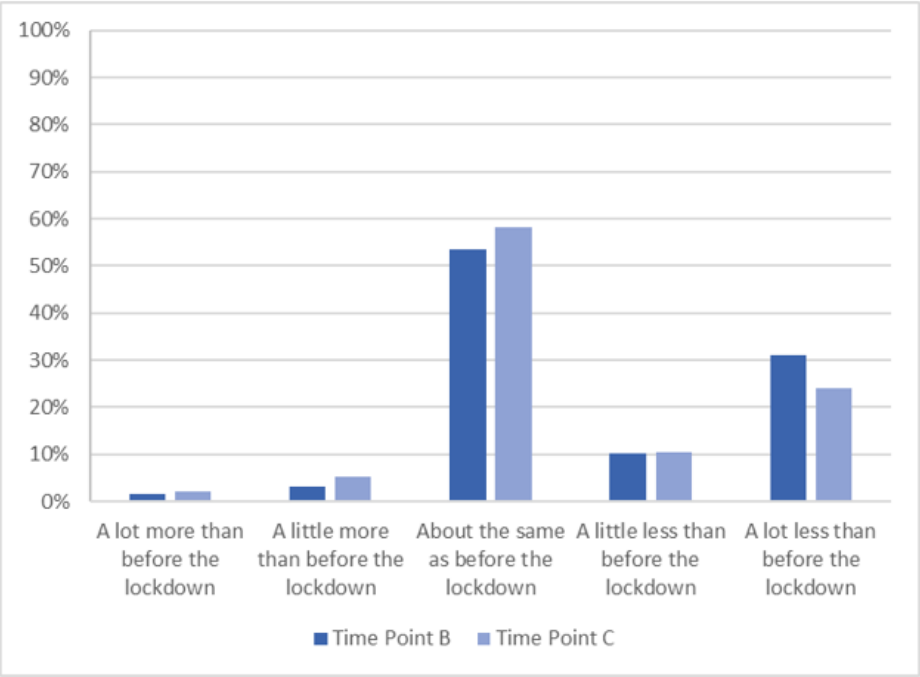


Time Point B N= 895 Time Point C N= 895. Base = All respondents.
Survey Question= When the coronavirus lockdown restrictions are removed, do you intend to use public transport?

4.11 At time point B, 41% of respondents said that once restrictions were removed, they intended to fly a little or a lot less than before lockdown restrictions were put in place. By time point C, this had reduced to 35%. There was also an increase in the number of people who said that they intended to fly a little more or a lot more, from

5% in at time point B to 7% at time point C. The proportion of people intending to fly about the same amount as they did before the lockdown increased from 53% at time point B to 58% at time point C. Whilst identifying the reason for this change is outside the scope of this research, it is likely that the reduction in the number of people intending to fly less, and the increase in those intending to fly the same amount or more may indicate fatigue with the pandemic and the restrictions, and an increased desire to go overseas on holiday.

Figure 6: Intention to fly for holiday or leisure purposes when coronavirus restrictions are removed



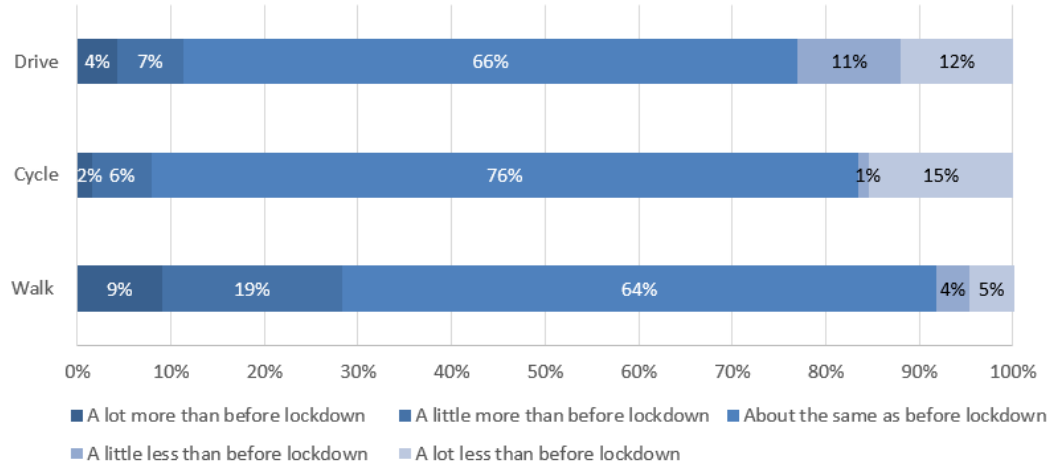
Time Point B N= 895 Time Point C N= 894. Base = All respondents.
Survey Question= When the coronavirus lockdown restrictions are removed, do you intend to fly for holiday or leisure purposes?

4.12 Respondents were asked for the first time at time point C about their intentions to walk, cycle and drive for commuting, domestic or leisure purposes once all restrictions are removed. The responses are summarised in Figure 7 below: 64% of respondents intend to walk the same amount as before lockdown with 28% intending to walk a little or a lot more, and 8% intending to walk a little or a lot less. When it comes to cycling, 76% of people intend to cycle the same amount as before lockdown, while 9% intend to cycle a little or a lot more and 17% intend to cycle a

little or a lot less. It is worth remembering that there may be a seasonal effect on responses as the question was asked at time point C, which occurred in November 2020. There may also have been a perception of increased traffic on the roads as people were able to move more freely (i.e. the removal of domestic travel restrictions), making cycling a less attractive option, but identifying whether this impacted on behaviour is outside of the scope of this research.

4.13 With regard to future driving intentions, at time point C, 66% intend to drive the same amount as they did before lockdown, while 23% intend to drive a little or a lot less and 11% intend to drive a little or a lot more. From a carbon reduction perspective, it is positive that 28% of respondents intend to walk more and 23% of respondents intend to drive less. However, it is not possible to say whether these intentions are likely to endure once restrictions are lifted or be translated into action.

Figure 7: Intention to walk, cycle or drive when coronavirus restrictions are removed (time point C)



N= 896. Base = All respondents. Survey Question= When the coronavirus lockdown restrictions are removed, do you intend to walk, cycle or drive for commuting, domestic or leisure purposes?

4.14 Another set of questions posed only at time point C examined the extent to which COVID-19 influenced people's decision to go on holiday. Respondents were asked whether they had been on holiday since 23rd March 2020, and whether they went

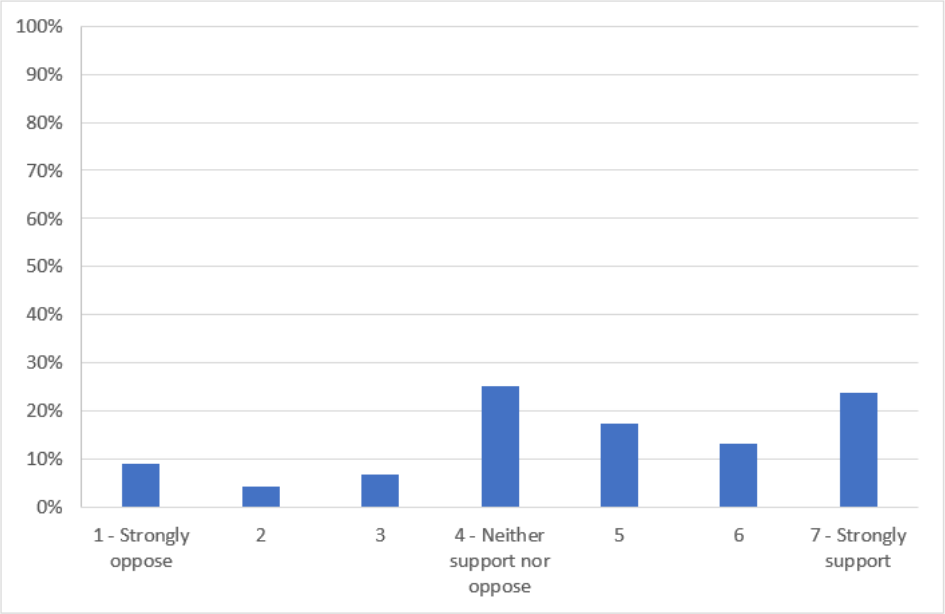
overseas or stayed in the UK[5]. Out of 897 responses, 78% of respondents (698 out of 897) did not go on holiday at all. Of the 197 respondents who went on holiday, 18% went to one or more UK destinations and 5% went to one or more overseas destinations.[6] Of the 197 respondents who went on holiday, 53% said that their choice of holiday destination had been influenced by COVID-19, and of the 698 respondents who did not go on holiday, 55% said that their decision was influenced by COVID-19.

4.15 There were some new policy-related questions posed at time point C that were not included in the survey at time point B. Respondents were asked whether they opposed or supported increasing space for walking and cycling in towns and cities by reducing space for cars and vans. Responses were on a seven-point scale from 'strongly disagree' (1), through 'neutral' (4), to 'strongly agree' (7). As can be seen in Figure 8, there was strong support for this with a total of 54% supporting this statement (the total of all responses rated 5-7), 25% neither supporting nor opposing, and 20% opposing (the total of all responses rated 1-3).

[5] It should be noted that for a period of time since March 2020 there have been restrictions in place regarding travel abroad. For more information see Senedd webpage. These restrictions may have impacted overseas travel.

[6] The total exceeds 100% because five of the respondents went on holiday in both the UK and overseas.

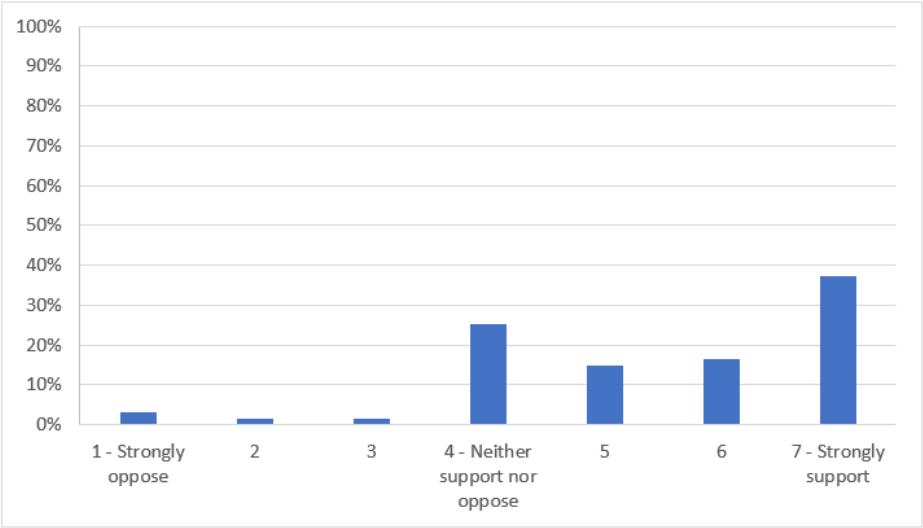
Figure 8: Level of support for increasing space for walking and cycling in towns and cities, by reducing space for cars and vans



N= 897. Base = All respondents. Survey Question = To what extent do you support or oppose increasing space for walking and cycling in towns and cities, by reducing road space for cars and vans?

4.16 There was even stronger support for encouraging people to work from home if they can, as shown in Figure 9. Only 6% of respondents opposed encouraging people to work from home, while 69% supported it.

Figure 9: Level of support for encouraging people to work from home if they can at time point C



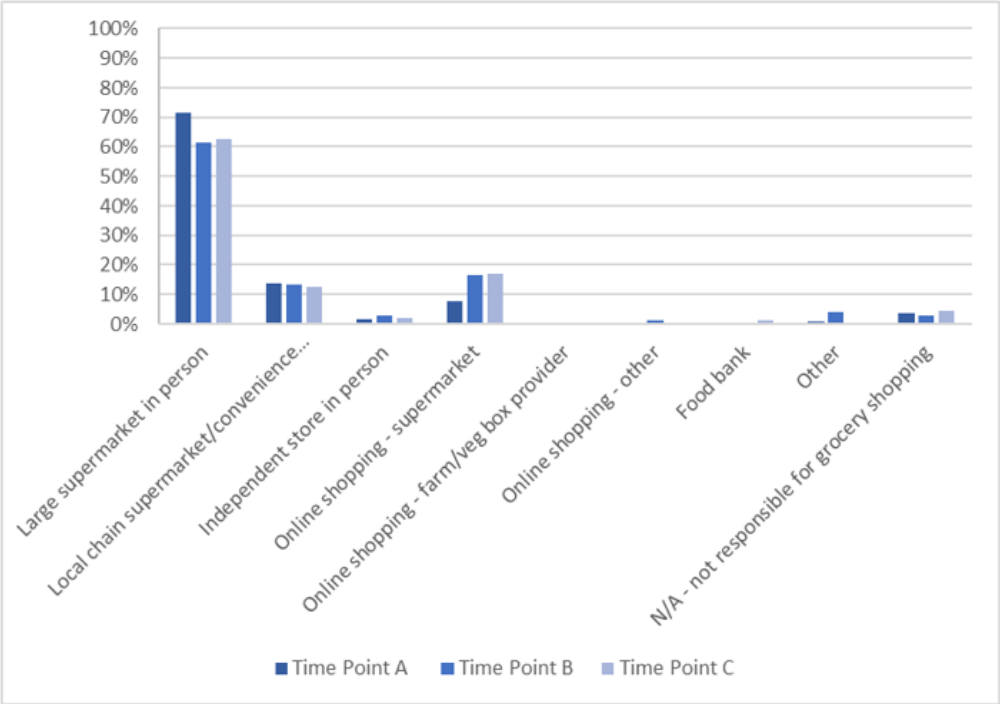
N= 897. Base = All respondents. Survey Question = To what extent do you support or oppose encouraging people to work from home if they can?

4.17 At time point C, respondents were also asked if measures had been put in place in their local area since the outbreak of COVID-19 to increase space for walking/cycling, such as pedestrianisation of certain streets or widening pavements. Twenty percent said that such measures had been introduced and 55% that they had not, with 24% unsure. Those who had said that measures had been introduced in their area were subsequently asked to what extent they wanted the measures to be retained in the long term, once COVID-19 was no longer a problem; response options were on a five-point scale with the categories ‘a lot’, ‘somewhat’, ‘a little’, ‘not at all’ and ‘don’t know’. Seventy three percent were in favour to some degree with 25% against retaining these measures.

5. Findings: Food purchasing, dietary choices and waste

5.1 The first in a series of questions relating to food behaviours asked where participants did their main weekly food shop; responses can be seen in Figure 10. In the first wave of the survey, respondents were asked where they shopped both before the pandemic (time point A) started and during the first lockdown (time point B). At time point A, 72% of people did their shopping in person at a large supermarket, 14% shopped in person at a local chain supermarket (e.g., Tesco metro), and 8% shopped online from a supermarket. At time point B, the proportion of people shopping in person in a large supermarket reduced by around 10 percentage points to 61%, the proportion shopping in a local chain supermarket stayed almost the same (13%) while the proportion shopping online from a supermarket increased by around 8 percentage points to 16%. There were also small increases in in-person shopping at independent stores and online shopping from outlets other than supermarkets or vegetable box providers. The responses collected at time point C showed very little change from the percentages recorded at time point B.

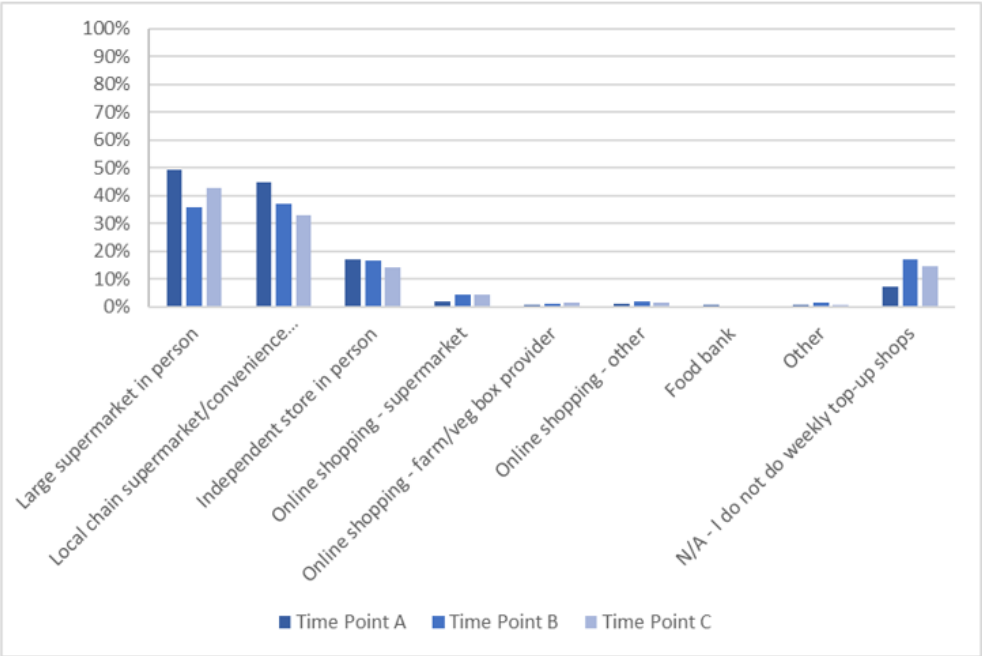
Figure 10: Choice of outlet for main weekly food shop



N= 895. Base = All respondents. Survey Question = At the moment, on a typical week where do you do your main weekly food shop? (If you're not doing your shopping for yourself at the current time, please think about where your nominated person does your weekly food shop for you.)

5.2 A related question asked where respondents did top-up shops during the week; the responses are summarised in Figure 11. At time point B the data showed that there was a reduction in the proportion of people using large supermarkets for top up-shops during lockdown compared to time point A (49% to 36%), and a reduction in the proportion using local chain supermarkets for top-up shops (from 45% to 37%). The percentage of people who did not do top-up shops increased from 7% to 17%. At time point C, the proportion of respondents using large supermarkets for top-up shops had increased by 7 percentage points to 43% and the proportion who said that they do not do weekly top-up shops had reduced to 14%. It is worth noting that between time point B and C, the proportion of those using local chain supermarkets had reduced a further 4 percentage points to 33%, and the proportion doing in-person shopping in independent stores had reduced from 17% to 14%.

Figure 11: Choice of outlet for weekly top-up shops



N= 860. Base =All respondents except those who responded that they were not responsible for the grocery shopping in their household. Survey Question = At the moment, on a typical week where do you do your weekly 'top-up' shops? (select all that apply) (Again, if you're not doing your shopping for yourself at the current time, please think about where your nominated person does your weekly food shop for you).

5.3 Respondents were asked about their eating habits; specifically, how many days in a typical week they ate red meat (e.g., beef or lamb), white meat (e.g., chicken or pork), and fish or seafood (e.g., salmon or prawns). During time point B, people ate red meat less frequently than before the pandemic (time point A). There was also a difference between the frequency with which red meat was consumed at time point B and at time point C, but the direction of the change was reversed, with people eating more red meat than they had during time point B. At time point C, the proportion of respondents eating red meat 5-7 days per week had exceeded pre-pandemic levels by 1 percentage point (5%). The proportion eating red meat 3-4 days per week had risen slightly above pre-pandemic levels (from 19% at time point A to 21% at time point C). The proportion of respondents eating red meat every day at time point C was greater than at time point B but did not exceed pre-pandemic levels.

5.4 There was also a reduction in the frequency with which white meat was consumed at time point B compared with pre-pandemic levels (time point A). White meat was

also being consumed at a lower frequency in November 2020 (time point C) than it was before the coronavirus outbreak. For fish and seafood, consumption remained broadly similar across all three time points Those that reported eating fish and seafood less than once a week was at its highest at time point C (32% at time point A, 30% at time point B and 35% at time point C).

5.5 To ascertain whether there was any change in the amount of food being wasted, respondents were asked what percentage of the potatoes, bread, and milk[7] that they last bought went unconsumed and ended up being thrown away (in a compost bin, ordinary bin, food waste collection, or down the sink). As the food waste questions required participants to reflect on how much of an item they had thrown away the last time they had bought it, rather than thinking about how much they typically throw away when they buy these items, respondents were not asked to provide a retrospective pre-coronavirus baseline. Therefore, it was not possible to tell whether there was any difference in waste between time point A and B. These findings concern changes between time point B and time point C only.

5.6 There was no substantial change in the proportion of people who reported no potato waste (from 37% at time point B to 38% at time point C). There was a slight overall downward shift in the quantities reported as being wasted, for example, there was a reduction in the proportion of respondents wasting 21-40% (from 8% at time point B to 5% at time point C) and an increase in those wasting 1-20% (44% at time point B to 47% at time point C).

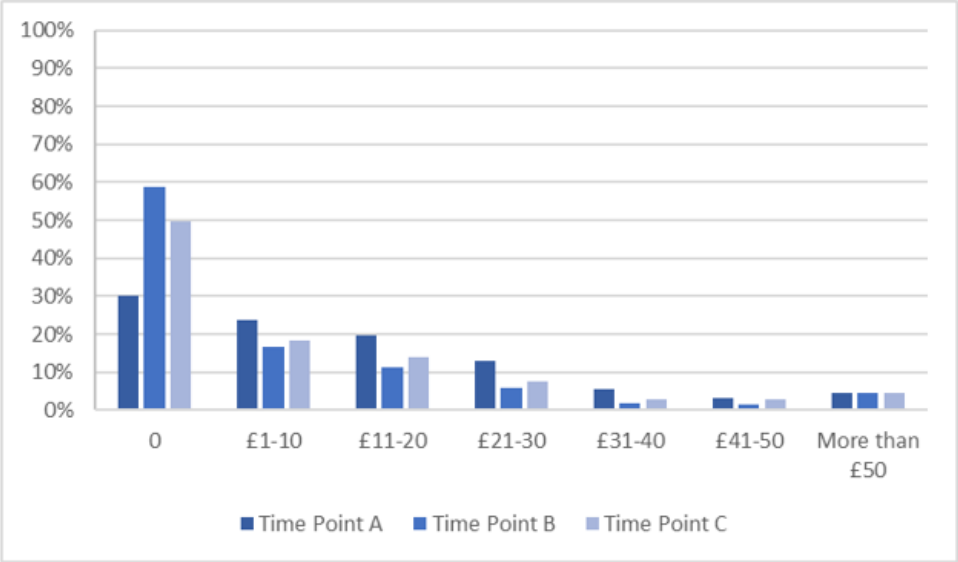
5.7 The proportions of people reporting no waste of a particular food item reduced from 50% at time point B to 47% time point C for bread, and from 77% at time point B to 73% time point C for milk, so it would seem that waste is starting to increase.

[7] These food items were chosen due to being three of the most commonly thrown-away foods in the UK – WRAP (2021) – Food surplus and waste in the UK – key facts [Accessed 21.12.2021]

6. Findings: Shopping behaviours

6.1 The survey included a range of questions examining consumer purchasing behaviour. The first question in this category asked about spend per week on food from restaurants, canteens and takeaways (see Figure 12). The introduction of lockdown (time point B) saw a decrease in this category of spend compared to time point A as catering outlets closed. Similarly, there was an increase in spending in this category at time point C when there were fewer restrictions in place outside of the 'firebreak' lockdown. However, spending had not yet returned to pre-coronavirus levels. Before the pandemic, 70% of respondents spent at least some money on food from catering outlets, this proportion reduced to 41% during the lockdown (time point B) and had increased to 50% in November (time point C), which is still some 20 percentage points lower than the pre-coronavirus baseline (time point A).

Figure 12: Spend on food from restaurants, canteens and takeaways



N= 897 (Every time point). Base = All respondents. Survey Question = At the moment, roughly how much do you spend per week on food from restaurants, canteens and takeaways?

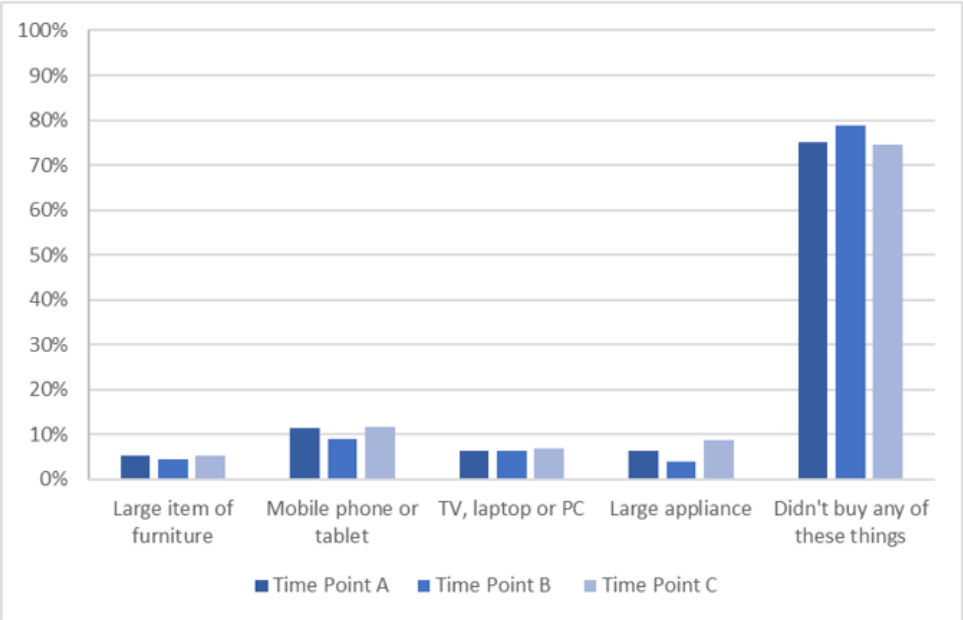
6.2 Respondents were also asked about major purchases in the previous three months. Specifically about major purchases of large items of furniture; mobile phones or tablets; TV, laptops or PCs; and large appliances (e.g., washing machine). The responses are shown in Figure 13. There were reductions of 1-2 percentage points

in most item categories at time point B compared with time point A, with the exception of 'TV, laptop or PCs' where there was no change.

6.3 Between time point B and time point C, there were percentage increases for all items, with changes occurring in the proportion of respondents who had purchased mobile phones or tablets, which saw an increase from 9% to 12% and those who had purchased large appliances, which increased from 4% to 9%. The proportion who said that they did not buy any of these items also reduced from 79% to 75%. At time point C, purchases in all of the categories had returned to or exceeded the pre-pandemic levels.

6.4 Respondents were asked at time point C whether they had purchased a car or bike in the previous three months; 4% had bought a car, and 1% had bought a bike. This was the first time that this data had been collected so this serves as a baseline.

Figure 13: Large or expensive item purchases

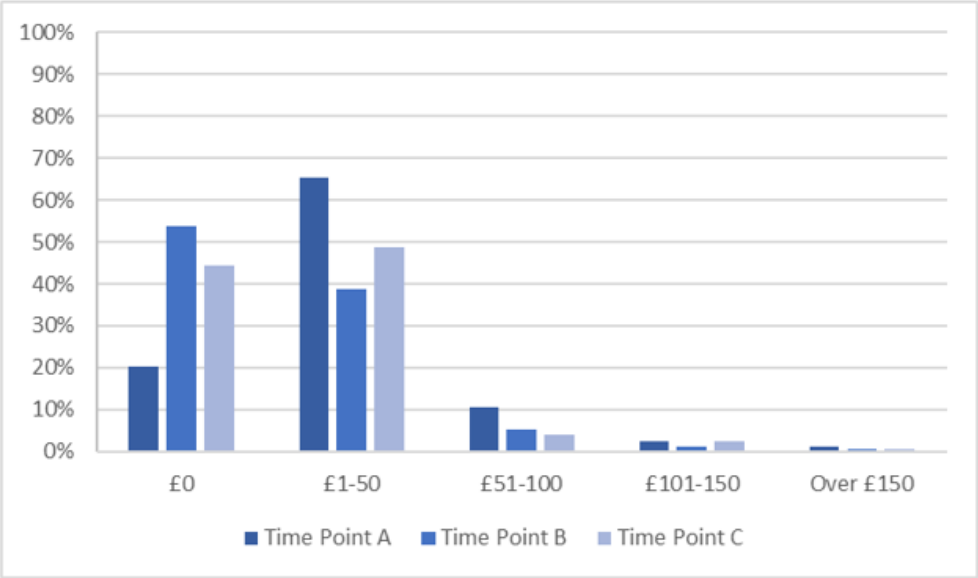


N= 897. Base = All respondents. Survey Question = In the last three months (August - October 2020), have you bought any of the following?

6.5 In addition to being asked about major purchases, respondents were asked about how much they typically spent on themselves per month in four categories: clothes and footwear; pets and pet food; beauty and grooming products; and phone, internet and TV contracts. As can be seen in Figure 14, spending on clothes and

footwear reduced from time point A to time point B with the proportion of respondents spending £0 on these items increasing from 20% to 54%, and the proportion of respondents spending £1-50 reducing from 65% to 39%. By time point C, spending had started to increase again with the proportion of respondents saying they spent £0 on clothes and footwear dropping to 45%, and the proportion spending £1-50 increasing by 10 percentage points to 49%.

Figure 14: Spend per month on clothes and footwear for oneself



N= 897 (Every time point) Base = All respondents. Survey Question = At the moment, how much do you typically spend per month on clothes and footwear for yourself?

6.6 Generally, the amount spent on pets did not change considerably. Between time point A and B the proportion of respondents spending £1-10, £21-30 and more than £30 increased by 1 percentage point whilst the proportion of respondents spending £11-20 decreased from 17% to 14%. At time point C, spending generally returned to pre-pandemic levels, however the proportion spending more than £30 fell lower than time point A. The increase in those spending £21-30 at time point B was also maintained at time point C.

6.7 In relation to the purchase of health, beauty and grooming products, the changes were also less marked. Nevertheless, there was a change in this category at time point B compared with time point A, with the proportion of people who said they

spend £0-50 in this category increasing from 90% to 94%, and the number spending £51-100 reducing from 7% to 6%.

6.8 Spending on phone, internet and TV contracts showed minimal change. The greatest changes occurred between time point B and C with spending of £1-30 decreasing from 34% to 32% whilst the proportion who spent more than £60 increased from 23% to 25%. This suggests a slight shift towards increased spending on these items at time point C.

7. Findings: Energy-related behaviours, concerns and intentions

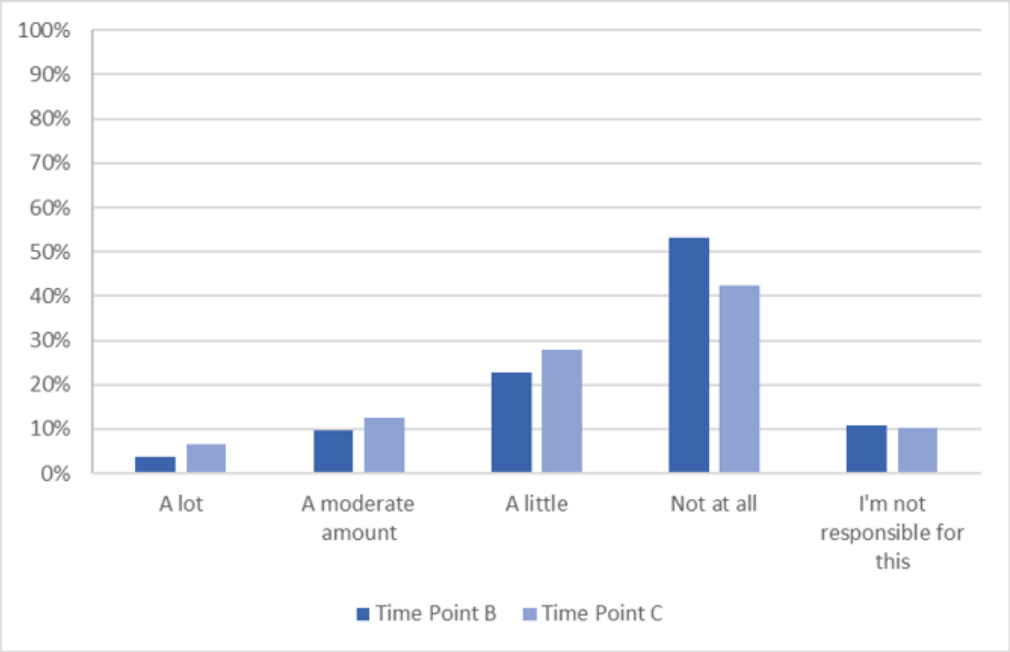
7.1 Respondents were asked how often they turned off lights and appliances when not in use instead of leaving them on standby; the response options were ‘never’, ‘sometimes’, ‘about half the time’, ‘most of the time’, and ‘always’. The median response was ‘most of the time’ at all three time points. Respondents reported that they turned off their lights and appliances more frequently at time point B. The proportion of respondents who never turned their lights and appliances off reduced from 8% at time point A to 6% at time point B. The proportion who selected ‘always’ increased from 28% to 31%. However, at time point C there was a reduction in the proportion of people who reported that they switched off the lights always or most of the time (from 64% to 61%).

7.2 A new series of questions were introduced in the second wave of the survey, at time point C. The findings discussed in this paragraph can therefore act as a baseline. These questions sought to gain a rough measure of respondents’ day-to-day energy use in the home. It should be noted that this period of data collection took place in November and there is likely to be seasonality bias in the responses. Respondents were first asked how many hours the lights were switched on in the home. The mean response value was 7 hours 29 mins; the majority of respondents (59%) of respondents had their lights on for between five and eight hours per day. The next question asked how many hours a day the heating was on in the home. The mean response value was 5 hours 29 minutes, and the median being four hours. Thirteen percent of respondents reported not turning their heating on at all, but the majority of respondents (71%) had the heating on for between one and eight hours a day. Lastly, respondents were asked to what temperature they were heating their homes on cold days. Thirty percent of people heated their homes to 18-19°C and 31% heated them to 20-21°C. At the extremes, 4% reported that their homes were heated to below 14°C while 7% chose to heat their homes to over 21°C.

7.3 At both time point B and time point C, respondents were asked about the extent to which they were worried about their ability to pay energy bills. As can be seen in Figure 15, there was an increase in concern from time point B to time point C. The proportion of respondents who reported that they weren’t at all worried fell from 53%

to 43%. Meanwhile, the proportion of respondents who were worried 'a little' (from 23% to 28%), 'a moderate amount' (from 10% to 13%) and 'a lot' (from 4% to 7%) increased. This difference may be attributable, at least in part, to the change in season, and the fact that most households would be anticipating an increase in energy bills as winter approached.

Figure 15: Level of concern about being able to pay for energy bills



N= 897. Base = All respondents. Survey Question = At the moment, to what extent are you worried about being able to pay for energy bills?

7.4 Respondents were asked about their current or future adoption of various technologies associated with improved energy efficiency or reduced resource use:

- Installing loft or wall insulation
- Installing a smart meter
- Installing a renewable energy system e.g., solar panels or heat pump
- Buying an electric or hybrid vehicle
- Getting a water meter

Response options for all of these questions were: 'I already did this in the last 3 months', 'I already did this more than 3 months ago', 'I'm in the process of doing

this', I'm thinking about doing this', 'I don't want to do this' and 'I haven't thought about doing this'. Between time point B and time point C, the proportion of respondents selecting 'I haven't thought about doing this' reduced for all five questions, indicating an across-the-board increase in the number of people giving at least some thought to these carbon-reducing technologies.

7.5 Installing loft or wall insulation was the energy efficiency measure which had the highest uptake with 57% of respondents during time point C stating that they had done this either in the previous three months or more than three months ago, an increase of 8 percentage points from time point B (49%). At time point C, more people had given thought to installing insulation than time point B, (28% of respondents at time point C saying that they hadn't thought about doing this compared with 36% at time point B). Rejection of insulation installation as an option was low, with only 8% of respondents indicating that they didn't want to adopt this measure.

7.6 Of the five technologies asked about in the survey, the smart meter option was the option that had been considered by the highest proportion of respondents. Only 16% of respondents at time point C had not thought about doing this (compared with 22% in time point B). Uptake was reasonably high at time point C with 43% having already installed a meter either in the last three months or more than three months ago (an increase of 5 percentage points on the time point B figure), and 3% being in the process of doing so. The rejection rate was almost static across the time points with the number of respondents selecting 'I don't want to/won't be doing this' was 25% for both time points.

7.7 Whereas a high proportion of respondents had given consideration to smart meter technology, the same was not true for renewable energy systems (e.g. solar panels or heat pumps) with 48% saying that they hadn't thought about adopting this measure at time point C (52% at time point B). Uptake was low at time point C, with only 9% of respondents having installed a renewable energy system in the preceding three months or more than three months ago (a small increase on the time point B figure of 6%), and only 0.3% being in the process of doing so at time point C. Although at time point C, 15% of respondents were thinking about doing

this, 27% had decided that they didn't want to or won't do this, an increase of 1% from time point B. The median shifted from 4 (thinking about doing this) to 2 (already did this more than three months ago) between time point B and time point C.

7.8 As per renewable energy systems, the uptake for electric or hybrid vehicles was also low with only 4% of respondents having bought an electric vehicle in the preceding three months or more than three months ago; this was an increase of 2 percentage points since time point B. The proportion of respondents who hadn't thought about buying an electric or hybrid vehicle reduced from 50% at time point B to 43% at time point C. Although there was an increase in the proportion who had decided that they don't want to or won't do this (from 27% to 29%), there was a larger increase in the proportion of people thinking about doing so (20% to 24%).

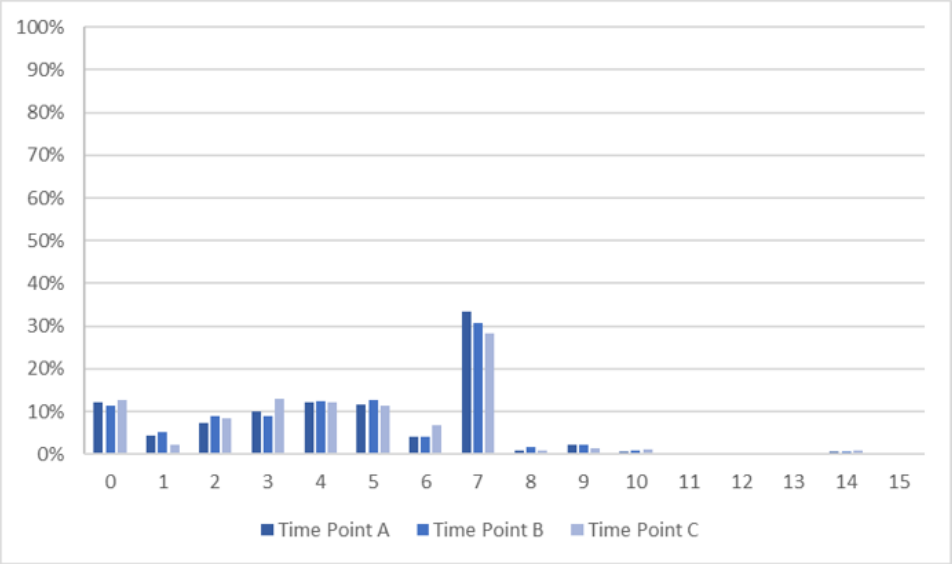
7.9 The last question in this set, related to water meters, and both awareness and uptake were high. Only 27% of respondents said that they hadn't thought about doing this at time point C (a reduction of 2 percentage points on the time point B response), and 38% already having done this in the preceding three months or more than three months ago (a small increase on the time point B figure of 37%). There was a slight increase in the proportion of respondents selecting 'I don't want to/won't do this' from 26% to 29% between time points B and C.

8. Findings: Water use

8.1 For both waves of data collection, respondents were asked how many baths and showers they took per week, and how long they spent in the shower, in order to understand behaviours relating to water use. The data collected at time point B showed the number of baths that people reported taking per week decreased from time point A to time point B. The mean in time point A was 1.5, and at time point B it was 1.2. The mean remained at 1.2 at time point C. The data relating to number of showers taken per week is shown in Figure 16.

8.2 This trend is also reflected in showers. At time point B, there was a reduction in the number of showers being taken per week than at time point A; the mean at time point A was 4.63, and at time point B this reduced to 4.57. As was the case with baths, there was no change in the mean number of showers per week between time point B and time point C, so the reduction in number of showers was maintained after lockdown. At time point B, there was minimal change in the length of time people were reporting to be spending in the shower (with the time point A mean being 8.2 minutes and the time point B mean being 8.3 minutes). At time point C, the mean was 8.1 minutes.

Figure 16: Number of showers taken per week



Time Point A N = 895 Time Point B N = 896 Time Point C N= 897. Base = All respondents.
Survey Question = At the moment, how many showers per week do you usually take?

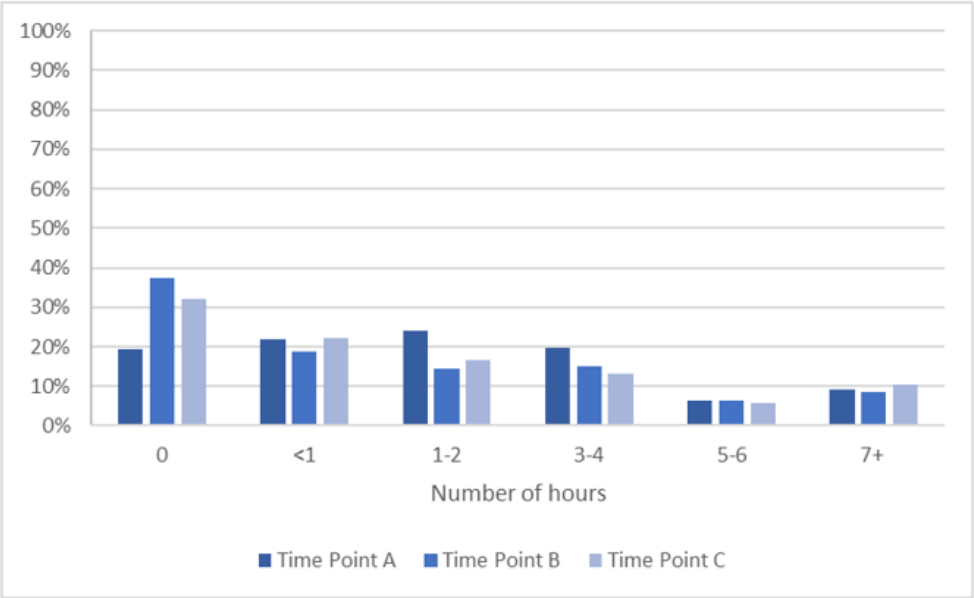
9. Findings: Leisure

9.1 The survey contained a series of questions examining how long participants spent on various leisure activities. When considering changes between waves, it should be borne in mind that some activities are weather-dependent and, therefore, seasonal effects may come into play, which could confound any effect caused by the pandemic.

9.2 The first question in this category asked about the number of hours per week spent on gardening. There was a marked increase between time point A and time point B. This was not compared to time point C, as seasonal changes are likely to have had an impact (with time point C being during November 2020).

9.3 Time spent visiting outdoor spaces (e.g., green space such as a park or woodland, or blue space such as a lake, river, or the sea) reduced noticeably at time point B compared to time point A. The proportion of respondents reporting that they spent no time on these activities almost doubled (from 20% at time point A to 37% at time point B), and the amount of time spent outdoors decreased across all response categories, as can be seen in Figure 17. There was a slight increase at time point C, with fewer people reporting spending no time outdoors (32% at time point C compared with 37% at time point B) and increases in some of the other response categories. It might be expected that the time spent outdoors would be lower in November than in June, and this seasonal effect would serve to limit any bounce back that may have occurred as a result of fewer restrictions on movement.

Figure 17: Hours per week spent visiting local outdoor spaces

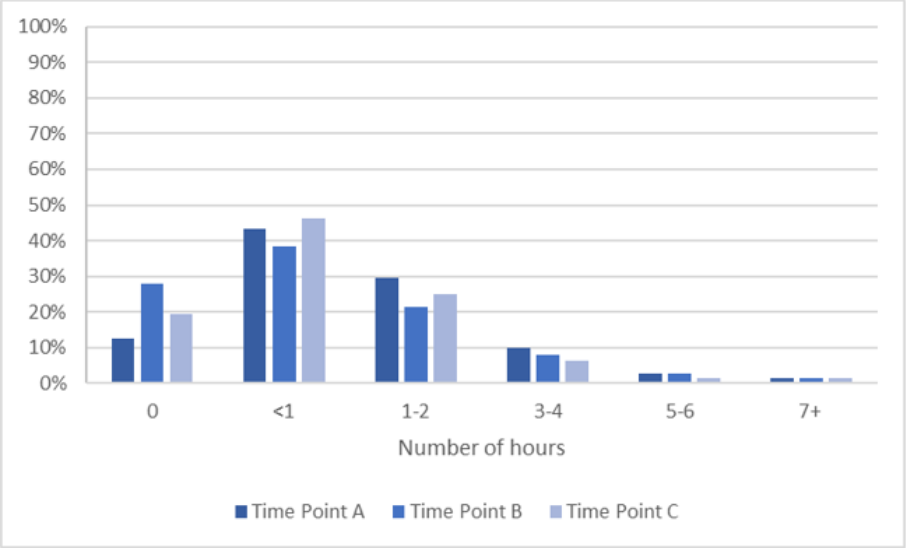


N= 897 (Every time point). Base = All respondents. Survey Question = At the moment, roughly how many hours per week do you spend doing the following: Visiting local outdoor spaces (e.g. green space – park, woodland; blue space – lake, river, sea)

9.4 The amount of time respondents spent doing exercise and sport reduced at time point B compared to time point A. The proportion of people who reported doing no exercise at all, increased from 22% at time point A to 30% at time point B. Despite this, the percentages for those who were already doing more than five hours per week, did not change. This suggests that those for whom exercise was an established part of their lives, managed to maintain their activity levels during the first lockdown period. There was a slight upturn at time point C, with the proportion of people reporting doing no exercise at all dropping to 27%. However, that figure had not yet returned to the pre-lockdown levels of time point A.

9.5 With movement restrictions in place and non-essential shops closed, it is unsurprising that the proportion of people spending no time at all shopping for non-food items more than doubled at time point B compared to the time point A (from 13% to 28%). Although the number of hours spent shopping had increased at time point C, there was still much less shopping taking place than at time point A, as can be seen in Figure 18.

Figure 18: Hours per week spent shopping for non-food items, including online shopping



N= 897 (Every time point) . Base = All respondents. Survey Question = At the moment, roughly how many hours per week do you spend doing the following: Shopping for non-food items, including online shopping (e.g., clothes, gadgets)

9.6 In regards to indoor leisure activities, the survey asked about time spent on creative hobbies such as music, art and sewing, and then specifically about cooking from scratch. The amount of time spent on creative hobbies showed a slight increase at time point B with those spending more than one hour on these activities rising from 37% at time point A to 38% at time point B. This figure increased very slightly to 39% at time point C.

9.7 There was an increase in time spent cooking from scratch at time point B compared with before the pandemic at time point A, with a sizeable jump in the proportion of those spending more than three hours per week on this activity (from 49% to 54%). The proportion of respondents spending more than three hours per week cooking reduced a little between time point B and C to 51%, but people were still spending more time cooking from scratch than they did at time point A.

10. Findings: Pro-environmental behaviours

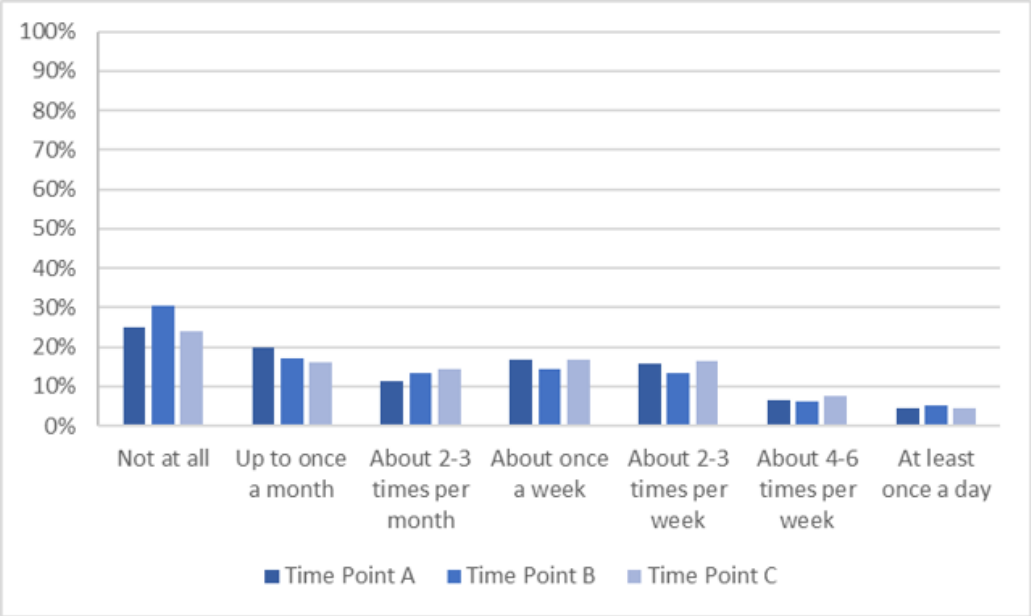
10.1 Respondents were asked about six behaviours that had an environmental impact. They were asked how many times per month they:

- ate locally grown or in-season food
- bought products with less packaging
- bought second-hand items (including from eBay, car-boot sales, and charity shops)
- borrowed or rented items (including library books, tools, toys, etc.)
- repurposed something for a different use, instead of throwing it away
- used a single-use item where a reusable alternative is available (in contrast to the other five which are all pro-environmental behaviours, this is a negative environmental behaviour)

10.2 Responses were given on a seven-point scale ranging from ‘not at all’ through to ‘once a week’ to ‘at least once a day’.

10.3 In all cases, there was a notable increase in the ‘not at all’ responses between the time point A and time point B, and then a decrease at time point C. This is illustrated in Figure 19, which shows how many times per month respondents ate locally grown or in-season food. Before the pandemic at time point A, 25% of respondents selected ‘not at all’, and this figure increased to 30% at time point B. At time point C, the proportion of respondents who said that they did not eat locally grown or in-season food at all dropped to 24%, which is lower than time point A. This suggest a slight general improvement in respondents eating locally grown or in-season food.

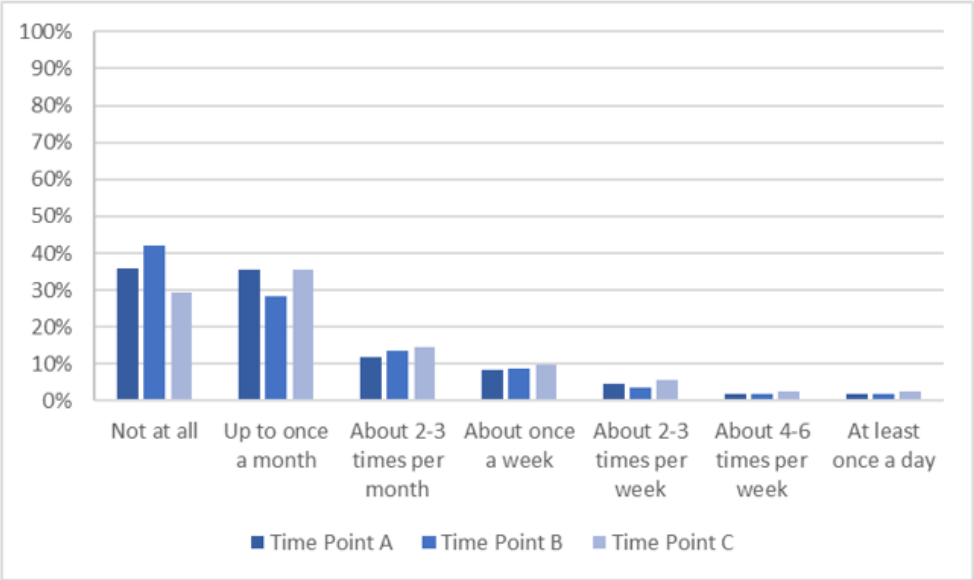
Figure 19: Monthly consumption of locally grown or in-season food



N= 897 (Every time point). Base = All respondents. Survey Question = At the moment, roughly how many times per month do you eat, locally-grown or in season food?

10.4 A similar pattern can be seen in relation to repurposing of an item instead of throwing it away (see Figure 20). Before the pandemic at time point A, 36% of respondents said that they never repurposed something for a different use, a proportion which increased to 42% during the lockdown (time point B). Then, at time point C, the proportion reduced to 29% (i.e., lower than the pre-pandemic time point A level), and the 'up to once a month' proportion increased from 28% to 36%. This suggests an overall improvement in this particular pro-environmental behaviour.

Figure 20: Monthly repurposing something for a different use, instead of throwing it away



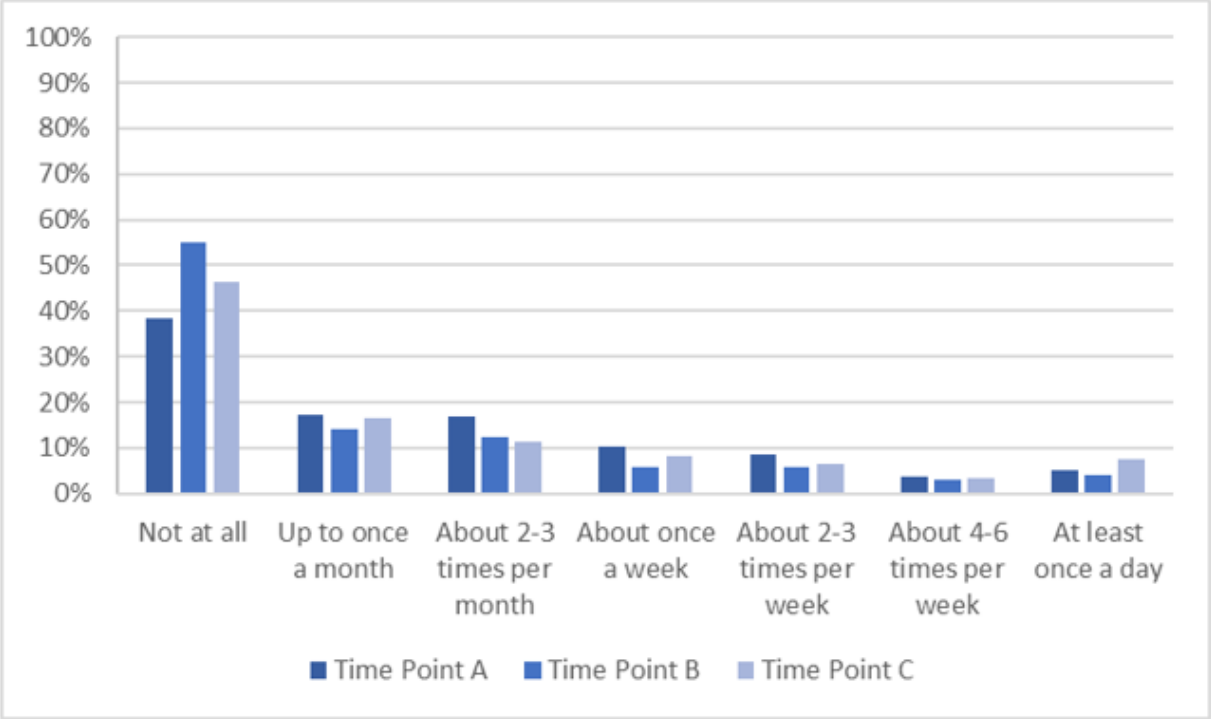
N= 897 (Every time point). Base = All respondents. Survey Question = At the moment, roughly how many times per month do you repurpose something for a different use, instead of throwing it away?

10.5 The same pattern can be seen in the data relating to buying products with less packaging – i.e. an increase in 'not at all' responses between time point A and B and a corresponding decrease between time point B and C. However, although the trend is similar for buying second-hand items, and borrowing or renting items, in these two cases, the time point C level has not yet returned to pre-pandemic levels (time point A) or above. This may be explained by ongoing restrictions still in place at time point C which limited opportunities to borrow or rent items (e.g., continued closure of public libraries) or to buy second-hand items (e.g., no car boot sales).

10.6 The reverse is true for the final category of behaviour under consideration: the use of single-use items when a reusable alternative is available (see Figure 21). Before the pandemic (time point A), 38% of respondents selected 'not at all' when asked how many times per month they used a single use-item. During lockdown (time point B), this increased to 55% which constituted a large and desirable improvement as it reduced waste as fewer single-use items were being used. However, by time point C, the proportion of respondents who selected 'not at all' had reduced to 46%. Less respondents were using a reusable item (i.e. not single-use) at time point C

compared to time point B which is not good for the environment as it would lead to an increase in waste.

Figure 21: Monthly use of single-use items where a reusable alternative is available



N= 897 (Every time point). Base = All respondents. Survey Question = At the moment, roughly how many times per month do you use a single-use item where a reusable alternative is available e.g. coffee cups, water bottles, sanitary products, carrier bags?

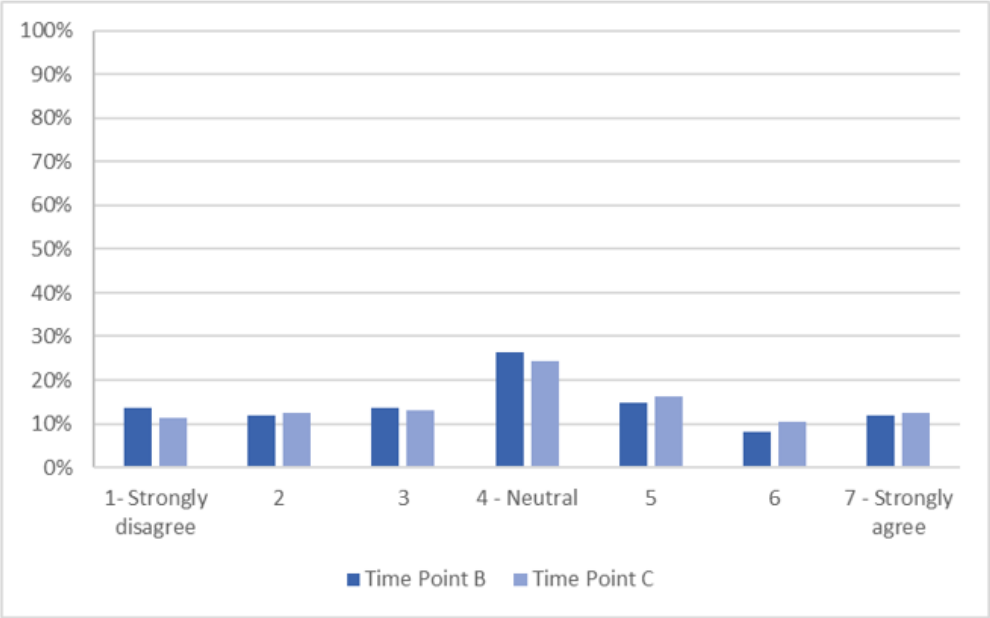
11. Findings: Attitudes towards policy approaches

11.1 The survey asked two questions to gauge attitudes towards the government prioritising climate change during the economic recovery post-pandemic or prioritising economic recovery even if that were to mean taking decisions that are bad for the environment. Responses were on a seven-point scale from 'strongly disagree' (1) through 'neutral' (4) to 'strongly agree' (7). The first question asked whether, in the economic recovery, it was important that government actions prioritise climate change.

- At time point B, 48% of respondents agreed with this, 32% were neutral and 20% disagreed.
- At time point C, these percentages changed slightly: 47% agreed, 31% were neutral, and 22% disagreed which suggested that there appeared to have been less support than previously.

11.2 The second question asked if the government should focus on helping the economy to recover first and foremost even if that meant taking some actions that are bad for the environment. Figure 22 shows the responses. At time point B, 39% of respondents disagreed with this statement, and 35% agreed. By time point C, the proportion who disagreed had reduced slightly to 37% while the proportion who agreed had gone up to 39%. The direction of the percentage shifts suggests that prioritisation of climate change in an economic recovery is slightly less important than it was.

Figure 22: Level of agreement that the government should prioritise economic recovery, even if it means taking decisions that are bad for the environment



N= 894 (Both time points). Base = All respondents. Survey Question = To what extent do you agree or disagree that government should focus on helping the economy to recover first and foremost, even if that means taking some actions that are bad for the environment?

12. Findings: Well-being

12.1 Respondents' subjective well-being was measured using the four personal well-being questions (ONS4) developed by the Office of National Statistics as part of the Measuring National Well-being programme[8]. These questions measure life satisfaction, the extent to which life feels worthwhile, happiness, and anxiety using numerical rating scales which run from 0-10. Participants answered these questions at time point B and time point C but were not asked to retrospectively answer these questions for time point A (before the pandemic).

12.2 There appeared to be a slight overall increase in reported life satisfaction between time point B and time point C, with 49% of respondents reporting high or very high life satisfaction[9] at time point C, compared with 46% at time point B. An increase was also apparent for the extent to which things in life feel worthwhile with 54% of respondents placing themselves in the high or very high category at time point C compared to 50% at time point B.

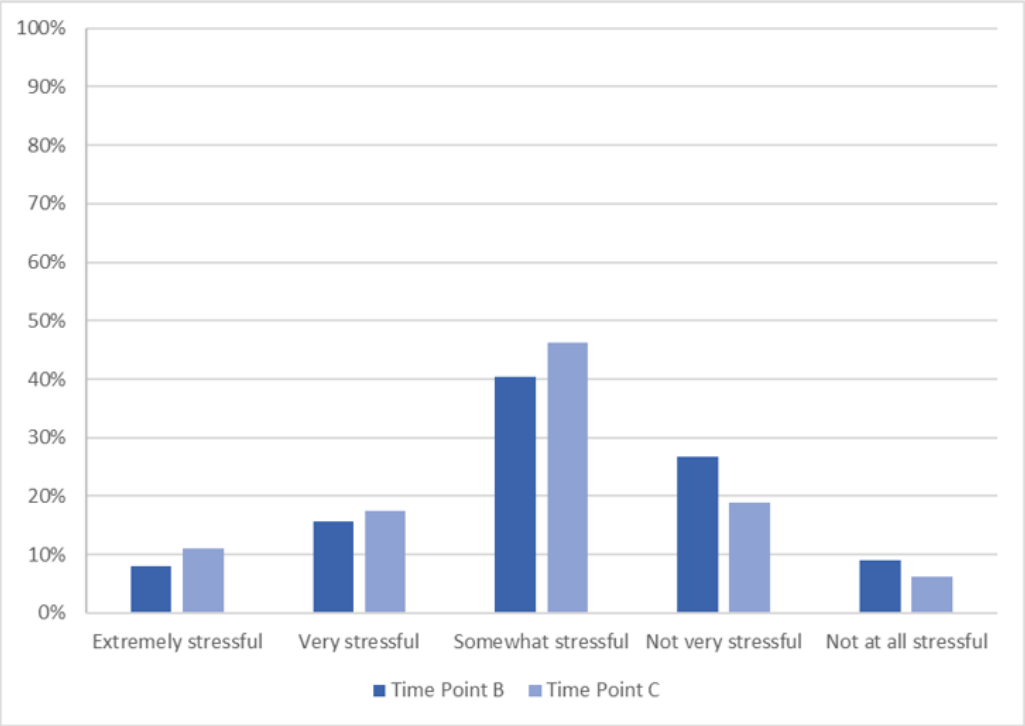
12.3 By contrast, there was a reduction in happiness between time point B and time point C with 51% of respondents in the high to very high category at time point C as opposed to 54% at time point B. Furthermore, there was an increase in anxiety[10] with the percentage of respondents in the high anxiety category increasing from 28% at time point B to 34% at time point C and the number in the very low category dropping from 21% at time point B to 18% at time point C.

12.4 As well as the ONS4 questions, respondents were asked how stressful, if at all, the COVID-19 pandemic and associated restrictions had been for them. As can be seen in Figure 23 below, responses options ranged from 'extremely stressful' to 'not at all stressful'. At time point B, 22% of respondents selected the 'extremely stressful' or 'very stressful' options and this increased to 28% at time point C which

[8] Details can be found at: Personal well-being user guidance - Office for National Statistics (ons.gov.uk) (accessed 22 Jan 2021)
[9] The reporting convention for the ONS4 measures of satisfaction, life being worthwhile, and happiness are that scores of 0-4 are low, 5-6 are medium, 7-8 are high, and 9-10 are very high.
[10] The reporting convention for the ONS measure of anxiety is that scores of 0-1 are very low, 2-3 are low, 4-5 are medium, and 6-10 are high.

suggests respondents found the COVID-19 pandemic and the associated restrictions more stressful as time went on.

Figure 23: Changes in subjective experience of stress related to the coronavirus outbreak and measures to control it



N= 897 (Both time points). Base = All respondents. Survey Question = How stressful, if at all, has the coronavirus outbreak and restrictions to tackle it been for you?

13. Findings: Maintaining behaviours after restrictions are lifted

13.1 As well as the fixed category response questions, there was also a free text entry box in which the participants in both waves were invited to record which, if any, aspects of their lifestyle or behaviour that had changed since the COVID-19 restrictions were imposed, they would like to maintain once restrictions were removed. Responses were analysed qualitatively and grouped into categories:

- Lockdown has caused no significant change to my life
- I want to retain no aspect of my lockdown lifestyle and want to return to life as it was
- Working from home
- Less travelling
- Changes to diet and eating habits
- Changes to exercise habits
- Shopping habits
- Spending more time outside
- Spending more time on hobbies
- Working less and having more free time
- Using virtual technologies (e.g. Zoom or Skype) more
- Increased family time, more contact with friends and greater community involvement
- Reducing waste
- Increased wariness and intention to maintain social distance

13.2 In the following synopsis of the comments, percentages given relate to the proportion of the 898 responders in each wave who gave that particular type of response; some respondents gave multi-part answers and so, overall, the totals will exceed 100%.

13.3 At time point B, almost a third of respondents (29%) either made no comment or indicated that they wanted to retain no aspect of their post-lockdown lifestyles or behaviours, with 3% expressing the view more forcibly that they just wanted life to return to the old normal. These values remained very similar at time point C, with

figures of 31% and 3% respectively. Another 4% of respondents at both time points B and C said that their lives had not been particularly affected by the restrictions. The largest category of responses related to changes in exercise habits, specifically a desire to continue with the increased exercise that respondents had started to undertake in their extra free time: 11% at time point B and 12% at time point C made reference to this with half of these narrowing down their particular preference to walking. As well as the responses stressing the value of exercising, there were another 4% at time point B who commented specifically on their new-found enjoyment in spending time outdoors, especially in communing with nature. At time point C that figure fell to 2% which may reflect the fact that responses were collected in November.

13.4 At both time points, just over 1% made specific mention of the pandemic causing them to become more environmentally aware and wanting to maintain a greener lifestyle.

13.5 Spending more time on hobbies was cited at time point B as something that 8% of respondents would like to continue doing, but this fell to 4% at time point C. Half of those who said they wanted to spend more time on hobbies at time point B specifically mentioned gardening but this fell to less than a quarter at time point C, which is likely, at least in part, to be a seasonal effect.

13.6 In addition, 6% of respondents who had identified that the lockdown restrictions had resulted in their pursuing a calmer, more relaxed way of life at time point B said they wanted to retain this ‘free time’ aspect in their lives in future. This fell slightly at time point C to 4%. At time point B, 5% mentioned a desire to reduce the amount of time spent travelling with several saying that they wanted to use their cars less, either by undertaking fewer journeys or by changing to walking or cycling. Less than half a percent of respondents said they wanted to return to more travelling, and this was generally in the context of taking holidays abroad. However, there was a marked difference at time point C: 7% specifically mentioned travel but at time point C only two thirds (68%) of these respondents indicated an intention to maintain the reduction in travel, with the other third (32%) looking to return to previous travel patterns, and most saying that they wanted to go on holiday. Again, although this

may indicate a degree of fatigue with the restrictions, there could also be a seasonal effect at play, given that time point C data was collected in November, with sunnier climes holding greater appeal.

13.7 At time point B, a number of respondents (7%) wanted to work from home more after restrictions were lifted, with some specifically mentioning that it allowed them to spend more time with their families. The desire to work from home was even higher at time point C, with the proportion increasing to 10%. The improved IT skills that came with overcoming the isolation of COVID-19 restrictions or with working from home was considered a benefit by some, with 2.3% commenting at time point B that they wanted to continue video calling friends and family, and to use these technologies for more practical purposes such as communicating with GPs, nurses and health specialists. This figure rose slightly at time point C, to 2.6%[11].

13.8 The use of IT also seemed set to influence individuals' future shopping habits. Of the 8% of respondents who cited changes to their shopping habits as something they would like to maintain at time point B, a fifth said that they wanted to continue with their 'click and collect' and online practice. Other respondents commented that they had realised that they had been too consumerist and wanted to maintain their more frugal and measured approach to shopping in future. Shopping assumed greater attention at time point C with 9% mentioning this aspect, of whom a quarter intended to do more online shopping, especially for groceries.

13.9 At time point B, 5% of respondents said that their eating habits had improved, and they intended to maintain this change with more cooking from scratch, less reliance on ready meals and fewer takeaways. Several indicated they intended to carry on drinking less alcohol. Fewer respondents at time point C cited improved eating habits, with the proportion reducing slightly to 4%. One issue of concern was the relatively large number, 5% in time point B, for whom the restrictions had resulted in an increased fear of contact. Comments indicating that individuals wanted to maintain reduced social interaction and to continue with increased safety measures

[11] To more accurately describe the change between time point B and time point C, figures have been reported to one decimal place.

such as wearing masks; by time point C, 8% of respondents expressed these concerns.

13.10 There was a second free text entry box in the time point C questionnaire in which respondents were asked to record what they were most looking forward to doing once the COVID-19 restrictions were removed. In the following grouping of comments below, percentages given relate to the proportion of the 898 responders who gave that particular type of response; some respondents gave multi-part answers and so, overall, the totals will exceed 100%.

13.11 Qualitative analysis enabled the responses to be grouped into ten categories:

- Meeting up with family and friends (41%)
- Travelling/going on holiday (24%)
- Going out to pubs, restaurants, the theatre, etc. (16%)
- Resuming curtailed activities (16%)
- Regaining freedom and being able to get outside more (8%)
- Not looking forward to anything in particular (5%)
- Being free from requirements to wear a mask, etc. (5%)
- Shopping (3%)
- Going back to work (1%)
- Attending medical appointments/receiving delayed treatment (0.7%)

13.12 The largest category of responses by far was that relating to meeting up with family and friends, which was mentioned by 41% of respondents. Sixteen percent of respondents were looking forward to resuming their social lives and being able to go out again to pubs, restaurants, the theatre, etc. A desire to returning to hobbies and other activities that were not currently possible, such as going to church or participating in sports, was cited by 7% of respondents. Only 5% of respondents said that they were not looking forward to anything in particular once the restrictions were lifted. In contrast to the approximately 4% of time point C respondents who had said that they wanted to continue doing less travelling when restrictions were lifted, 24% wanted to do more travelling, and especially to go on holiday - some in the UK and others abroad. Balancing the increased wariness of social contact mentioned earlier, 5% of respondents were looking forward to being free of mask-

wearing and other restrictions, with a further 8% wanting to regain their freedom, especially being able to go further afield outdoors. Although around 3% of respondents had said in their answer to the previous question that they wanted to continue shopping less, 3% were looking forward to being able to browse or do their shopping in physical shops rather than online. Additionally, 1% were looking forward to returning to work and 0.7% were keen to have medical issues addressed.

14. Conclusions

14.1 This survey looked at a range of behaviours which impact the environment and climate change. It is clear from the findings that the COVID-19 pandemic had a large impact on individual's behaviours. The majority of behaviours had started to return to pre-lockdown levels by time point C.

Transport

14.2 There was a large reduction in the number of people commuting to work when the restrictions were imposed at time point B. Those still travelling to work were more likely to go by car, while car sharing and train use fell, but bus use remained static. The proportions for each travel mode remained very similar in time point C. When considering future intentions that might have an impact on travel, there was little indication that there would be a substantial increased growth in home working once the restrictions are lifted: the proportion of people intending to work from home a little or a lot more than before lockdown remained static. However, the proportion of respondents who reported they intended to use virtual technologies for meetings less than before lockdown decreased between time point B and C, suggesting respondents were less averse to using these. . Findings suggests a slight increase between time point B and C in the intention to use virtual technologies for GP appointments. There was, however, less appetite to use virtual technologies for social meetings, with the proportion intending to meet virtually with family and friends more often than before lockdown falling between time point B and time point C.

14.3 There was a reduction in the number of people reporting that they would use public transport less after restrictions were removed between time point B and C. This may be reflective of the removal of the 'essential travel only' instruction for public transport use or may have been due to people having become less fearful of using public transport at that time. There was also a reduction in the proportion of respondents reporting that they intended to fly less between time point B and C along with an increase in the proportion who intend to fly more or the same amount as before lockdown restrictions. This could be due to growing fatigue with the pandemic restrictions and a desire to get away from the UK. In terms of potentially

environmentally-beneficial future changes asked of respondents at time point C, nearly a quarter of respondents said that they intend to drive less than they did before lockdown (compared with 11% indicating they will drive more), while 28% intend to walk more, and 8% intend to cycle more.

14.4 There was clear support for increasing space for walking and cycling in towns and cities by reducing space for cars and vans, and there was even stronger support for encouraging people to work from home if they can. Of the respondents who had said that measures to increase walking/cycling space had been introduced in their area, almost three quarters expressed the view that such measures should be retained.

Food and Diet

14.5 There was a reduction in the proportion of people doing their main weekly food shop in a large supermarket, and an increase in the proportion of people doing their food shopping online at time point B (compared to time point A). There was relatively little change in the proportions at time point C.

14.6 In relation to dietary choices, people ate red meat less frequently at time point B than at time point A. However, the change was reversed at time point C with people eating red meat more frequently than they had at time point B although the proportion of respondents who reported eating red meat everyday had not returned to the same levels as at time point A.

14.7 There was a reduction in the frequency with which white meat consumption was reported at time point B compared with time point A. White meat consumption was also lower at time point C than it was before the COVID-19 outbreak. For fish and seafood, consumption remained broadly static across the three time points.

14.8 There were also no considerable changes in food waste between any of the time points, although the reductions in the proportions of people reporting no wasted bread or milk at time point C, suggest that waste might be starting to creep up again.

Consumer spending

14.9 Regarding consumer spending, there was a considerable reduction in the proportion of respondents buying food from restaurants, canteens and takeaways at time point B, compared with time point A. This increased to an extent at time point C but was still far from returning to pre-pandemic spending. There was also a small reduction in the number of people buying large or high-value items at time point B compared with time point A, but proportions had returned to or surpassed pre-lockdown levels by time point C. Large reductions in spending on clothing and footwear were reported at time point B and, while this change was starting to reverse at time point C, levels of spending remained lower than before the coronavirus outbreak, at time point A. Changes in spending on other categories – health, beauty and grooming products; phone, TV and internet contracts; and pets and pet food – were less marked.

Home energy use

14.10 At time point B, people turned off their lights and appliances more frequently than at time point A. At time point C there was a reduction in the proportion of people who reported that they switched off the lights always or most of the time,

14.11 Also, in relation to energy consumption, there was an increase in concern about ability to pay energy bills at time point C compared with time point B. It should be noted that there may be a seasonal effect at play, with the time point C data having been collected in November when energy consumption naturally increases due to the need for heating and artificial lighting.

14.12 Regarding technologies aimed at improving energy efficiency or reducing resource consumption, between time point B and time point C there was an increase either in uptake or in consideration being given to: loft/wall insulation, smart meter installation, renewable energy systems, and electric or hybrid cars.

14.13 Respondents were asked how many baths and showers they took per week, and how long they spent in the shower. The data collected at time point B showed a decrease in the number of baths and showers people were taking compared with time point A. The mean number of baths and showers taken remained the same at

time point C, indicating that these changes had persisted. There was minimal difference in the amount of time respondents spent in the shower across the time points.

Leisure

14.14 When it came to leisure pursuits, there was a large increase in the amount of time spent gardening at time point B. A considerable reduction in the time spent visiting local outdoor spaces was apparent at time point B, which would be attributable to movement restrictions. However, this was beginning to reverse at time point C notwithstanding the poorer weather anticipated in November. As might have been expected, there was a reduction in the time people spent shopping for non-food items at time point B; although this change reversed at time point C, the overall amount of time spent on this activity remained lower than pre-COVID-19 pandemic levels. Time spent on indoor creative hobbies showed a slight increase at time point B, and this increased slightly again at time point C. In addition, there was an increase in the time spent cooking from scratch during time point B, however this fell in time point C. Respondents were still cooking from scratch more at time point C than before the pandemic.

Pro-environmental behaviours

14.15 In a series of questions exploring pro-environmental behaviours – eating locally grown or in-season food, buying products with less packaging, buying second-hand items, borrowing or renting items, repurposing something for a different use, and using a single-use item where a reusable alternative is available (the reverse of a pro-environmental behaviour) – there were very similar patterns of results across the board. All the responses showed a marked reduction in pro-environmental behaviour between pre-pandemic levels at time point A and time point B (except for single-use items where the same data pattern indicated an increase in pro-environmental behaviour). However, the change reversed between time point B and time point C, with proportions recovering to very close to the pre-COVID levels, some slightly above and some slightly below.

Views on environmental and social issues

14.16 Respondents were asked how worried they were about various environmental and social issues. At time point B, COVID-19 had been the issue causing greatest concern, followed by destruction of nature and wildlife, plastic pollution, and climate change. These four issues remained at the top of the table at time point C, but destruction of nature, wildlife and biodiversity had overtaken COVID-19 as the issue of greatest concern.

14.17 When asked whether, in the post-pandemic economic recovery, it was important that government actions prioritise climate change, almost half of respondents agreed. At time point C, these percentages changed slightly to suggest there was slightly less support for this than there had been previously. In response to a second question asking if the government should focus on helping the economy to recover first and foremost even if that means taking some actions that are bad for the environment, time point B results showed that 39% of respondents disagreed with this statement and 35% agreed. By time point C, the proportion who disagreed had reduced slightly to 37%, while the proportion who agreed had gone up to 39%. This overall shift from disagree to agree may reflect people's growing concern about the economy as the pandemic wore on.

Well-being

14.18 For measures of well-being, there was an increase in reported life satisfaction and the extent to which things in life felt worthwhile between time point B and C. However, there was a reduction in happiness, and increases in anxiety and in stress. Findings also suggested that respondents found the COVID-19 pandemic and the associated restrictions more stressful in time point C than at time point B. These findings are unsurprising given that, by the time the respondents were providing their time point C responses, they were into the eighth month of the pandemic, and had just come through another period of stricter restrictions due to the firebreak.

14.19 Overall, the introduction of the first lockdown to combat COVID-19 led to changes across many areas of behaviour including travel and work arrangements, shopping habits and energy use. In some cases, these changes persisted at time point C

whilst other behaviour patterns began to return to pre-pandemic levels. Patterns of behaviour perceived as good for the environment were mixed. A reduction in the use of appliances and water from before the pandemic appeared to persist. Conversely, self-reported pro-environmental appeared to reduce at time point B and then return to pre-pandemic levels at time point C. Although some participants were open to continuing to use virtual technologies beyond the pandemic, for many, this was not something they wished to maintain with friends and family. Most commonly, participants were looking forward to meeting up with friends and family again once restrictions were lifted.

Annex A – COVID-19 Lifestyle surveys

COVID-19 Lifestyle survey – wave 1

Information
Thank you for your interest in this study. Please read below to know more about what is involved. **Purpose of the research** This survey explores how attitudes and behaviours develop over time, specifically before, during and after coronavirus (COVID-19). A report will be produced using the data collected to inform Welsh Government policy teams regarding how behaviour has changed during lockdown. **What taking part involves** There will be a series of questions about your lifestyle and attitudes to social issues. The survey requires no special knowledge for you to complete it. Your participation is voluntary, you do not have to answer all the questions if you do not want to, and you may withdraw from the study at any point. Please note: The survey should take around 17 minutes to complete and your YouGov Account will be credited with 50 points for completing the survey. You must live in Wales and be aged 18 years or older to participate in this study. There will also be the option to take part in a second part to this survey in a few months' time. If you have any questions or concerns about this research please feel free to contact any of the researchers involved in the project, using the contact details below. **Your data** The information provided by you in the survey will be held anonymously, so it will be impossible to trace this information back to you individually. The anonymous data itself will be held indefinitely and may be used to produce reports, presentations, and academic publications.

Investigator contact details

Principal Investigator: Prof. Lorraine Whitmarsh; whitmarshle@cardiff.ac.uk ; Tel.: 02920 876972)

Please contact Cardiff School of Psychology Ethics committee if you have any concerns regarding this project: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Park Place, Cardiff, CF10 3AT, UK; Tel: +44 (0)29 2087 0360, email: psychethics@cardiff.ac.uk

If you consent to participate in the study, please select the box below before proceeding to the next page:

- ☐ By ticking this box you are giving your consent to participating in this academic study
- ☐ I do not wish to continue with this survey

Language

Would you like to complete the survey in Welsh or in English? / Hoffech chi gwblhau'r arolwg yn Gymraeg neu yn Saesneg?

- ☐ English / Saesneg
- ☐ Welsh / Cymraeg

Lifestyle

1. Overall, how **satisfied** are you with life nowadays (since being in lockdown)?

Not at all satisfied										Completely satisfied
0	1	2	3	4	5	6	7	8	9	10

2. Overall, to what extent do you feel the things you do in your life are **worthwhile** (since being in lockdown)?

Not at all worthwhile										Completely worthwhile
0	1	2	3	4	5	6	7	8	9	10

3. Overall, how **happy** did you feel **yesterday**?

Not happy at all										Completely happy

0	1	2	3	4	5	6	7	8	9	10

4. Overall, how **anxious** did you feel **yesterday**?

Not anxious at all										Completely anxious
0	1	2	3	4	5	6	7	8	9	10

5. How worried are you personally about the following issues at present?

	Not at all worried	Not very worried	Somewhat worried	Very worried	Extremely worried
Climate change	○	○	○	○	○
Coronavirus (COVID-19)	○	○	○	○	○
Brexit	○	○	○	○	○
Immigration	○	○	○	○	○
Unemployment	○	○	○	○	○
Terrorism	○	○	○	○	○
Air pollution	○	○	○	○	○
Crime	○	○	○	○	○
Antibiotic resistance	○	○	○	○	○
Plastic pollution	○	○	○	○	○
Destruction of nature, wildlife and biodiversity	○	○	○	○	○

6. How stressful, if at all, has the coronavirus outbreak and lockdown been for you?

Extremely stressful	Very stressful	Somewhat stressful	Not very stressful	Not at all stressful
○	○	○	○	○

7. To what extent do you agree or disagree with the following statements:

	1 Strongly disagree	2	3	4 Neutral	5	6	7 Strongly agree
In the economic recovery after Covid-19, it's important that government actions prioritise climate change	○	○	○	○	○	○	○
Government should focus on helping the economy to recover first and foremost, even if that means taking some actions that are bad for the environment	○	○	○	○	○	○	○

Lifestyle before lockdown

This next set of questions asks you about what you used to do before the outbreak of coronavirus (COVID-19). In particular, please think about what you did before 'lockdown' was announced on 23rd March.

First, a few questions about your work and travel

8. Before the coronavirus outbreak, were you in paid employment?
   - ☐ Yes
   - ☐ No

9. Before the coronavirus outbreak, how many days per week did you usually travel into work? (If you worked entirely from home, please type '0').

[Free text box]

10. Please consider how you would typically travel between your home and place of work before the outbreak of coronavirus (COVID-19). Then select all that apply from the list below:

- ☐ Private car or motorbike
- ☐ Car share/pool
- ☐ On foot
- ☐ Bike
- ☐ Train
- ☐ Bus
- ☐ Underground train or tram
- ☐ Other – please specify
  [Free text]
- ☐ I worked entirely from home

11. On a typical day, roughly how many *minutes* would you spend using/doing each of the following on your journey from your home **to** your place of work (include only your journey to work, not your return):

	0	20	40	60	80	100	120	140	160	180	200
Private car or motorbike	○	○	○	○	○	○	○	○	○	○	○
Car share/pool	○	○	○	○	○	○	○	○	○	○	○
On foot	○	○	○	○	○	○	○	○	○	○	○
Bike	○	○	○	○	○	○	○	○	○	○	○
Train	○	○	○	○	○	○	○	○	○	○	○
Bus	○	○	○	○	○	○	○	○	○	○	○
Underground train or tram	○	○	○	○	○	○	○	○	○	○	○
Other	○	○	○	○	○	○	○	○	○	○	○

12. For this following question, please still think in terms of what you **usually** did i.e. **before** the outbreak of coronavirus (COVID-19)

Travelling to work by [answer to Q10] is something...

	1 Strongly disagree	2	3	4	5	6	7 Strongly agree
I did automatically	○	○	○	○	○	○	○
I did without having to consciously remember	○	○	○	○	○	○	○
I started doing before I realised I was doing it	○	○	○	○	○	○	○

13. **Before** the coronavirus/COVID-19 outbreak, were you thinking about changing the way you usually travel to work (for reasons unrelated to the virus)?

- ☐ No plans to change
- ☐ Have been thinking about making a change
- ☐ Was going to make a change
- ☐ Want to change, but not able to

14. **Before** the coronavirus outbreak and in a typical *week,* how many days per week would you **usually** work from **home**?

- ☐ Never
- ☐ Once a week
- ☐ Twice a week
- ☐ Three times a week
- ☐ Four times a week
- ☐ Five or more times a week

15. Before the coronavirus outbreak, how many times per year on average did you **fly** for **holidays / leisure**? (Count a return flight as 1 flight)

[Free text]

16. Before the coronavirus outbreak, how many times **per week** on average would you go by car (either as a driver or passenger) for leisure, social or domestic activities (i.e., not commuting or for work)?

[Free text]

What you eat and buy

17. Before the coronavirus outbreak, on a typical week where did you do your main weekly food shop?

- ☐ A large supermarket/superstore in person (including click and collect)
- ☐ A local chain supermarket or convenience store (e.g. Tesco Metro, Spar) in person
- ☐ An independent store in person
- ☐ Online shopping from a supermarket
- ☐ Online shopping from a farm/veg box provider (e.g. Riverford)
- ☐ Online shopping from another supplier
- ☐ Food bank
- ☐ Other
- ☐ Not applicable – I am not responsible for the grocery shopping in my household

18. Before the coronavirus outbreak, on a typical week where did you do your weekly 'top-up' shops? (select multiple)

- ☐ A large supermarket/superstore in person (including click and collect)
- ☐ A local chain supermarket or convenience store (e.g. Tesco Metro, Spar) in person
- ☐ An independent store in person
- ☐ Online shopping from a supermarket
- ☐ Online shopping from a farm/veg box provider (e.g. Riverford)
- ☐ Online shopping from another supplier

- ☐ Food bank
- ☐ Other
- ☐ Not applicable – I don't do weekly 'top-up' shops

19. Before the coronavirus outbreak, how many days in a typical **week** did you eat red meat (e.g., beef, lamb)?

- ☐ Every day
- ☐ 5-6 days per week
- ☐ 3-4 days per week
- ☐ 1-2 days per week
- ☐ Less than once per week
- ☐ Never

20. Before the coronavirus outbreak, how many days in a typical **week** did you eat white meat (e.g., chicken, pork)?

- ☐ Every day
- ☐ 5-6 days per week
- ☐ 3-4 days per week
- ☐ 1-2 days per week
- ☐ Less than once per week
- ☐ Never

21. Before the coronavirus outbreak, how many days in a typical **week** did you eat fish or seafood (e.g. salmon, prawns)?

- ☐ Every day
- ☐ 5-6 days per week
- ☐ 3-4 days per week
- ☐ 1-2 days per week
- ☐ Less than once per week
- ☐ Never

22. Before the coronavirus outbreak, roughly how much did you spend per **week** on food from restaurants, canteens and takeaways?

- ☐ 0
- ☐ £1-10
- ☐ £11-20
- ☐ £21-30
- ☐ £31-40
- ☐ £41-50
- ☐ More than £50

23. In the **three months before the coronavirus outbreak** (December 2019 - February 2020), did you **buy** any of the following (tick all that apply):

- ☐ Large item of furniture
- ☐ Mobile phone or tablet
- ☐ TV, laptop or PC
- ☐ Large appliance (e.g., washing machine, dishwasher)
- ☐ Didn't buy any of these things

24. Before the coronavirus outbreak, in a typical **month**, how much did you typically spend on **clothes and footwear** for yourself?

- ☐ £0
- ☐ £1-50
- ☐ £51-100
- ☐ £101-150
- ☐ Over £150

25. Before the coronavirus outbreak, in a typical **month**, how much did you spend on your **pets and pet food**?

- ☐ I didn't have a pet
- ☐ £1-10
- ☐ £11-20
- ☐ £21-30

☐ More than £30

26. Before the coronavirus outbreak, in a typical **month**, how much did you typically spend on **health, beauty and grooming products** for yourself?

☐ £0-50

☐ £51-100

☐ £101-150

☐ Over £150

27. Before the coronavirus outbreak, in a typical **month**, how much did you typically spend on **phone, internet and TV contracts**?

☐ 0

☐ £1-30

☐ £31-60

☐ More than £60

28. **Before** the coronavirus outbreak, how often did you **turn off your lights and appliances** when not in use (instead of leaving them on standby)?

☐ Never

☐ Sometimes

☐ About half the time

☐ Most of the time

☐ Always

29. Before the coronavirus outbreak, how many **baths** per week did you usually take?

[Free text]

30. Before the coronavirus outbreak, how many **showers** per week did you usually take?

[Free text]

31. Before the coronavirus outbreak, roughly how long did you spend in the **shower**?

- ☐ I did not shower
- ☐ 1 minute
- ☐ 2 minutes
- ☐ 3 minutes
- ☐ 4 minutes
- ☐ 5 minutes
- ☐ 6 minutes
- ☐ 7 minutes
- ☐ 8 minutes
- ☐ 9 minutes
- ☐ 10 minutes
- ☐ 11 minutes
- ☐ 12 minutes
- ☐ 13 minutes
- ☐ 14 minutes
- ☐ 15 or more minutes

32. Before the coronavirus outbreak, roughly how many times per **week** would **you use water outdoors** (e.g. using a hosepipe, using a paddling pool, washing your car/bike, cleaning outdoors spaces)

- ☐ Never
- ☐ Less than once per week
- ☐ 1-2 times
- ☐ 3-4 times
- ☐ 5-6 times
- ☐ 7 or more times
- ☐ I don't have a garden

33. Before the coronavirus outbreak, roughly how many **hours per week** did you spend doing the following:

	0	Less than 1	1-2	3-4	5-6	7 or more
Gardening	○	○	○	○	○	○
Shopping for non-food items, including online shopping (e.g. clothes, gadgets)	○	○	○	○	○	○
Creative hobbies	○	○	○	○	○	○
Cooking from scratch	○	○	○	○	○	
Exercise and sport (including cycling and walking)	○	○	○	○	○	○
Visiting local outdoor spaces (e.g. green space – park, woodland; blue space – lake, river, sea	○	○	○	○	○	○

34. Before the coronavirus outbreak, roughly how many times **per month** did you do each of the following?

	Not at all	Up to once a month	About 2 or 3 times per month	About once a week	About 2 to 3 times per week	About 4 to 6 times per week	At least once a day
Eaten locally –grown or in season food	○	○	○	○	○	○	○
Bought products with less packaging	○	○	○	○	○	○	○
Bought second-hand items (including from eBay, carboot sales and charity shops)	○	○	○	○	○	○	○
Borrowed or rented items, including library books, tools, toys, etc.	○	○	○	○	○	○	○
Repurposed something for a different use, instead of throwing it away	○	○	○	○	○	○	○

Used a single-use item where a reusable alternative is available e.g. coffee cups, water bottles, sanitary products, carrier bags	○	○	○	○	○	○	○

Thank you for your responses so far!

Lifestyles since lockdown

In the UK, 'lockdown' was announced by the government on 23rd March in response to the coronavirus (COVID-19). The following questions are about what happened after the lockdown was announced and how you have adapted to it.

First, a few questions about your current work-related travel.

35. Which of these applies to you?

<1> I am currently working entirely from home

<2> I am working partly from home and partly from a workplace away from my home

<3> I am working entirely from a workplace away from my home

<4> I am not currently working or am on furlough

36. In what way(s) do you now travel to work (please select all that apply)

- ☐ Car or motorbike
- ☐ On foot
- ☐ Bike
- ☐ Train
- ☐ Bus
- ☐ Underground train or tram

☐ Car share/pool

☐ Other – please specify

37. Overall, how would you describe your experience of **working at home** during the lockdown?

1 Very negative	2	3	4	5	6	7 Very positive
○	○	○	○	○	○	○

38. When the coronavirus lockdown restrictions are removed, do you intend to....

	A lot more than before the lockdown	A little more than before the lockdown	About the same as before the lockdown	A little less than before the lockdown	A lot less than before the lockdown
Work from home...	○	○	○	○	○
Have virtual/online instead of in-person meetings...	○	○	○	○	○
Have GP appointments by phone or online (if available) instead of in person...	○	○	○	○	○
Have virtual/online meetings with friends and family...	○	○	○	○	○

Use public transport…	○	○	○	○	○
Fly for holiday or leisure purposes…	○	○	○	○	○

Now, a few questions about your current food and shopping behaviours (i.e. taking into account any changes due to the coronavirus or lockdown).

39**. At the moment,** on a typical week where do you do your main weekly food shop? (If you're not doing your shopping for yourself at the current time, please think about where your nominated person does your weekly food shop for you.)

- ☐ A large supermarket/superstore in person (including click and collect)
- ☐ A local chain supermarket or convenience store (e.g. Tesco Metro, Spar) in person
- ☐ An independent store in person
- ☐ Online shopping from a supermarket
- ☐ Online shopping from a farm/veg box provider (e.g. Riverford)
- ☐ Online shopping from another supplier
- ☐ Food bank
- ☐ Other
- ☐ Not applicable – I am not responsible for the grocery shopping in my household

40. **At the moment**, on a typical week where do you do your weekly 'top-up' shops? (select all that apply) (Again, if you're not doing your shopping for yourself at the current time, please think about where your nominated person does your weekly food shop for you).

- ☐ A large supermarket/superstore in person (including click and collect)
- ☐ A local chain supermarket or convenience store (e.g. Tesco Metro, Spar) in person
- ☐ An independent store in person
- ☐ Online shopping from a supermarket
- ☐ Online shopping from a farm/veg box provider (e.g. Riverford)
- ☐ Online shopping from another supplier
- ☐ Food bank

- ☐ Other
- ☐ Not applicable – I don't do weekly 'top-up' shops

41. **At the moment**, how many days in a typical **week** do you eat red meat (e.g., beef, lamb)?

- ☐ Every day
- ☐ 5-6 days per week
- ☐ 3-4 days per week
- ☐ 1-2 days per week
- ☐ Less than once per week
- ☐ Never

42. **At the moment**, how many days in a typical **week** do you eat white meat (e.g., chicken, pork)?

- ☐ Every day
- ☐ 5-6 days per week
- ☐ 3-4 days per week
- ☐ 1-2 days per week
- ☐ Less than once per week
- ☐ Never

43. **At the moment**, how many days in a typical **week** do you eat fish or seafood (e.g. salmon, prawns)?

- ☐ Every day
- ☐ 5-6 days per week
- ☐ 3-4 days per week
- ☐ 1-2 days per week
- ☐ Less than once per week
- ☐ Never

44. Thinking **about the last time you bought potatoes**, approximately what percentage ended up being uneaten and thrown away (whether in a compost bin, ordinary bin, council

food waste collection, or down the sink)? This includes cooked and uncooked potatoes, uneaten skins and peelings.

- ☐ None
- ☐ 1-10%
- ☐ 11-20%
- ☐ 21-30%
- ☐ 31-40%
- ☐ 41-50%
- ☐ 50% or more
- ☐ Not applicable - I don't buy this

45. Thinking **about the last time you bought bread**, approximately what percentage ended up being uneaten and thrown away (whether in a compost bin, ordinary bin, council food waste collection, or down the sink)? This includes bread crusts.

- ☐ None
- ☐ 1-10%
- ☐ 11-20%
- ☐ 21-30%
- ☐ 31-40%
- ☐ 41-50%
- ☐ 50% or more
- ☐ Not applicable - I don't buy this

46. Thinking **about the last time you bought milk**, approximately what percentage ended up being unused and thrown away (whether in a compost bin, ordinary bin, council food waste collection, or down the sink)? This includes what you got rid of after pouring/serving, e.g. on cereal.

- ☐ None
- ☐ 1-10%
- ☐ 11-20%
- ☐ 21-30%
- ☐ 31-40%
- ☐ 41-50%

- ☐ 50% or more
- ☐ Not applicable - I don't buy this

47. **At the moment**, roughly how much do you spend per **week** on food from restaurants, canteens and takeaways?

- ☐ 0
- ☐ £1-10
- ☐ £11-20
- ☐ £21-30
- ☐ £31-40
- ☐ £41-50
- ☐ More than £50

48. In the **last three months** (March - May 2020), have you **bought** any of the following (tick all that apply):

- ☐ Large item of furniture
- ☐ Mobile phone or tablet
- ☐ TV, laptop or PC
- ☐ Large appliance (e.g., washing machine, dishwasher)
- ☐ Haven’t bought any of these things

49. **At the moment**, how much do you typically spend **per month** on **clothes and footwear** for yourself?

- ☐ £0
- ☐ £1-50
- ☐ £51-100
- ☐ £101-150
- ☐ Over £150

50. **At the moment**, how much do you typically spend **per month** on your **pets and pet food**?

- ☐ I don't have a pet
- ☐ £1-10
- ☐ £11-20
- ☐ £21-30
- ☐ More than £30

51. **At the moment**, how much do you typically spend **per month** on **health, beauty and grooming products** for yourself?

- ☐ £0-50
- ☐ £51-100
- ☐ £101-150
- ☐ Over £150

52. **At the moment**, how much do you typically spend **per month** on **phone, internet and TV contracts**?

- ☐ £0
- ☐ £1-30
- ☐ £31-60
- ☐ More than £60

53. **At the moment**, how often do you **turn off your lights and appliances** when not in use (instead of leaving them on standby)?

- ☐ Never
- ☐ Sometimes
- ☐ About half the time
- ☐ Most of the time
- ☐ Always

54. Since the coronavirus outbreak, to what extent have you **worried** about being able to pay for **energy bills**?

- ☐ A lot
- ☐ A moderate amount
- ☐ A little
- ☐ Not at all
- ☐ I'm not responsible for this

55. Which answer best applies to you and your household at the moment with regards to the following measures? *When answering, please think about whether or not this has been done to your home, even if the decision was not made by you personally.*

	Already did this in the last 3 months	Already did this more than 3 months ago	In the process of doing this	Thinking about doing this	Don't want to/ won't do this	Haven't thought about doing this
Installing loft or wall insulation	○	○	○	○	○	○
Installing a smart meter	○	○	○	○	○	○
Installing a renewable energy system (e.g., solar panels, heat pump)	○	○	○	○	○	○
Buying an electric or hybrid vehicle	○	○	○	○	○	○
Getting a water meter	○	○	○	○	○	○

Now, a few questions about things you're doing at home while in lockdown...

56**. At the moment,** how many **baths** per week do you usually take?

[Free text]

57. **At the moment**, how many **showers** per week do you usually take?

[Free text]

58. **At the moment**, roughly how long do you spend in the **shower**?

- ☐ I did not shower
- ☐ 1 minute
- ☐ 2 minutes
- ☐ 3 minutes
- ☐ 4 minutes
- ☐ 5 minutes
- ☐ 6 minutes
- ☐ 7 minutes
- ☐ 8 minutes
- ☐ 9 minutes
- ☐ 10 minutes
- ☐ 11 minutes
- ☐ 12 minutes
- ☐ 13 minutes
- ☐ 14 minutes
- ☐ 15 or more minutes

59. **At the moment**, roughly how many times per **week** would **you use water outdoors** (e.g. using a hosepipe, using a paddling pool, washing your car/bike, cleaning outdoors spaces)?

- ☐ Never
- ☐ Less than once per week
- ☐ 1-2 times
- ☐ 3-4 times
- ☐ 5-6 times
- ☐ 7 or more times
- ☐ I don't have a garden

60. **At the moment**, roughly how many **hours per week** do you spend doing the following:

	0	Less than 1	1-2	3-4	5-6	7 or more
Gardening	○	○	○	○	○	○
Shopping for non-food items, including online shopping (e.g. clothes, gadgets)	○	○	○	○	○	○
Creative hobbies	○	○	○	○	○	○
Cooking from scratch	○	○	○	○	○	
Exercise and sport (including cycling and walking)	○	○	○	○	○	○

Visiting local outdoor spaces (e.g. green space – park, woodland; blue space – lake, river, sea	○	○	○	○	○	○

61. **At the moment**, roughly how many times **per month** do you do each of the following?

	Not at all	Up to once a month	About 2 or 3 times per month	About once a week	About 2 to 3 times per week	About 4 to 6 times per week	At least once a day
Eaten locally – grown or in season food	○	○	○	○	○	○	○
Bought products with less packaging	○	○	○	○	○	○	○
Bought second-hand items (including from eBay, carboot sales and charity shops)	○	○	○	○	○	○	○
Borrowed or rented items, including library books,	○	○	○	○	○	○	○

tools, toys, etc.							
Repurposed something for a different use, instead of throwing it away	○	○	○	○	○	○	○
Used a single-use item where a reusable alternative is available e.g. coffee cups, water bottles, sanitary products, carrier bags	○	○	○	○	○	○	○

62. Which aspects, if any, of your lifestyle or behaviours that have changed since lockdown would you like to maintain once restrictions are removed?

[Free text]

Now, we just have a few questions about your attitudes and concerns.

63. To what extent do you agree or disagree with the following statements:

	1 Strongly disagree	2	3	4	5	6	7 Strongly agree
I feel regretful if I waste things	○	○	○	○	○	○	○
It doesn't bother me if	○	○	○	○	○	○	○

I waste things							
This is an attention filter. Please select 'Strongly agree'	○	○	○	○	○	○	○
Humans have the right to modify the natural environment to suit their needs	○	○	○	○	○	○	○
Humans are seriously abusing the environment	○	○	○	○	○	○	○
Plants and animals have as much right as humans to exist	○	○	○	○	○	○	○
The balance of nature is strong enough to cope with the impacts of modern industrial nations	○	○	○	○	○	○	○
The balance of nature is very delicate and easily upset	○	○	○	○	○	○	○

64. Which of these best describes your views about the way in which climate change needs to be addressed

- ☐ Addressing climate change requires an extremely high level of urgency
- ☐ Addressing climate change requires a high level of urgency
- ☐ Addressing climate change requires a moderate level of urgency
- ☐ Addressing climate change requires a low level of urgency

☐ Addressing climate change requires little or no urgency

☐ Don't know

Finally, please tell us a bit more about yourself and your living arrangements.

65. How many **adults** (aged 18 or older), including you, live in your home?

[Free text]

66. How many **children** (under 18) live in your home?
[Free text]

67. How does your household income at the moment compare to what it was before the coronavirus outbreak (as a result of the outbreak or not)?

☐ A lot more

☐ A little more

☐ About the same

☐ A little less

☐ A lot less

68. In the past seven days, have you visited a park or public green space?

☐ Yes

☐ No

69. Do you have a garden (including a shared garden)?

☐ Yes

☐ No

70. Which of the following best describes the area in which you live?

☐ Countryside or small village

☐ Large village or small town

☐ Centre of a large town or city

☐ Suburbs of a large city or town

Debrief
Thank you very much for your responses! If you have any comments about the survey or about the topics we asked about, please write them here. Please click “next” to complete the study.

COVID-19 Lifestyle survey – wave 2

Questions from wave 1: Qs 1-7, Qs 35-53

At the moment, roughly how many **hours a day** do you have the **lights** on in your home?

Please type in a number between 0 and 24.

At the moment, roughly how many **hours a day** do you have the **heating** on in your home?

Please type in a number between 0 and 24.

At the moment, roughly what temperature is your home heated to on cold days?

- ☐ Below 14 degrees C
- ☐ 14-15 degrees C
- ☐ 16-17 degrees C
- ☐ 18-19 degrees C
- ☐ 20-21 degrees C
- ☐ Over 21 degrees C
- ☐ I don’t know

Questions from wave 1: Qs 54-58, Qs 60-61

What, if anything, are you most looking forward to doing once COVID-19 restrictions are completely removed?

[Free text]

Have you been away on holiday since March this year?

- ☐ Yes - I went to one or more UK destinations
- ☐ Yes - I went to one or more overseas destinations
- ☐ No

If yes to Q5, was your choice of holiday destination influenced at all by COVID-19?

- ☐ Yes
- ☐ No

If no to Q5, Was your decision not to go away on a holiday influenced at all by COVID-19?

- ☐ Yes
- ☐ No

Questions from wave 1: Q 63

To what extent do you support or oppose the following measures:

	1 Strongly Oppose	2	3	4 Neither support nor oppose	5	6	7 Strongly support
Increasing space for walking and cycling in towns and cities, by reducing road space for cars and vans	○	○	○	○	○	○	○

Encouraging people to work from home if they can	○	○	○	○	○	○	○

9. Since the outbreak of COVID-19, have measures been put in place in your local area to increase space for walking/cycling (e.g., pedestrianisation of certain streets, widening pavements)?

- ☐ Yes
- ☐ No
- ☐ Don't know

10. To what extent, if at all, would you like these measures to be retained in the long-term, once COVID-19 is no longer a problem?

- ☐ A lot
- ☐ Somewhat
- ☐ A little
- ☐ Not at all
- ☐ Don't know

Questions from wave 1: Q64, Q67

Annex B – Target and Achieved sample survey wave 1

Age by Gender by Education	Unweighted no.	Weighted no.	Target %
Men Over 65	**139**	**133**	**12.0**
Men 50-64 High education	**33**	**33**	**3.0**
Men 50-64 Mid education	**57**	**53**	**4.8**
Men 50-64 Low education	**55**	**49**	**4.4**
Men 25-49 High education	**68**	**69**	**6.2**
Men 25-49 Mid education	**56**	**79**	**7.1**
Men 25-49 Low education	**26**	**60**	**5.4**
Men Under 25 High education	**8**	**10**	**0.9**
Men Under 25 Mid & Low education	**22**	**54**	**4.9**
Women Over 65	**185**	**155**	**14.0**
Women 50-64 High education	**41**	**33**	**3.0**
Women 50-64 Mid education	**70**	**60**	**5.4**
Women 50-64 Low education	**52**	**48**	**4.3**
Women 25-49 High education	**96**	**79**	**7.1**
Women 25-49 Mid education	**99**	**83**	**7.5**
Women 25-49 Low education	**46**	**51**	**4.6**
Women Under 25 High education	**11**	**11**	**1.0**
Women Under 25 Mid & Low education	**46**	**49**	**4.4**

2019 Vote	Unweighted no.	Weighted no.	Target %
Con	**333**	**300**	**27.0**
Lab	**395**	**341**	**30.7**
Lib Dem	**54**	**50**	**4.5**
Plaid Cymru	**100**	**82**	**7.4**
Brexit Party	**53**	**46**	**4.1**
Other	**22**	**13**	**1.2**
Dont know / Didnt vote	**153**	**279**	**25.1**

Political Attention	Unweighted no.	Weighted no.	Target %
Low (0-2)	**87**	**211**	**19.0**
Medium (3-7)	**727**	**666**	**60.0**
High (8-10)	**296**	**233**	**21.0**

Social Grade	Unweighted no.	Weighted no.	Target %
AB	**287**	**233**	**21.0**
C1	**340**	**322**	**29.0**
C2	**184**	**222**	**20.0**
DE	**299**	**333**	**30.0**

Referendum Vote	Unweighted no.	Weighted no.	Target %
Remain	**510**	**405**	**36.5**
Leave	**432**	**440**	**39.6**
Don't Know / Didn't Vote	**168**	**265**	**23.9**

Welsh Region	Unweighted no.	Weighted no.	Target %
Mid and West	**222**	**212**	**19.1**
North	**241**	**230**	**20.7**
Cardiff	**138**	**129**	**11.6**
South Central	**84**	**119**	**10.7**
South East	**234**	**230**	**20.7**
South West	**191**	**191**	**17.2**