# The views of older drivers on road safety interventions

## A Survey of older drivers by IAM RoadSmart for the Department for Transport

# About IAM RoadSmart

IAM RoadSmart (formerly known as the Institute of Advanced Motorists) has a mission to make better drivers and riders to improve road safety, inspire confidence and make driving and riding more enjoyable. The UKs leading road safety charity, it has over 82,000 members and around 180 local groups across the UK. To find out more about IAM RoadSmart products and services visit: www.iamroadsmart.com

# Foreword – Older Drivers Survey

More and more Britons are living longer and healthier lives but, at this report finds, the car is still by far the most popular transport option for them and one they are not keen to give up. The number of drivers over the age of 80 is now getting close to two million and many are using their cars more often as a central part of their active lives.

Older drivers up to the age of 80 are not a high risk group on our roads and most actually have a very positive appetite for changes to ensure they can stay mobile for as long as possible. As in the 2015 report it is still clear that medical professionals have a key role to play in informing and influencing the choice to give up driving. It is also clear that little has changed since 2015 to help older drivers prepare and plan for life without the car. If we are to avoid a demographic time bomb of isolated older people stuck in their homes requiring extra services, it is vital that governments across the UK engage in an open dialogue about their plans and actions to deliver safer roads and continued mobility. We called for action six years ago and that call is now even more important as our population ages. IAM RoadSmart acknowledge the generous support of the Department of Transport in funding this report.

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# Executive Summary and Key Findings

## Study Aims

1. To survey a large group of drivers aged 60 and over to understand current driving habits, driver training, self-regulation in avoiding difficult driving conditions, driver confidence and ability, and to gather their views on giving up driving.
2. To examine attitudes to a range of potential methods to increase the safety of older drivers such as optical and medical assessments, driving assessments and more flexible driver licensing. To gather opinions on novel interventions such as a self-testing kit for fitness to drive.
3. For current drivers, to examine whether they have considered stopping driving, and identify circumstances which may influence their decision to give up driving. For ex-drivers, to identify their reasons for giving up driving and influences on that decision.
4. To provide an insight into the type of projects, campaigns and policies that would be most effective among older road users (to be addressed in the driver focus groups to follow).
5. To compare findings with those of a similar survey carried out in 2015 for IAM RoadSmart.

## Study Methods

1. An online questionnaire was used to survey a large group of adult drivers to obtain information on current driving habits, driver training, self-regulation in avoiding difficult driving conditions, driver confidence and ability, and to gather their views on giving up driving.
2. The questionnaire was broadly similar to the one used in 2015 with some additional questions to take account of the Covid-19 pandemic. Appendix I shows the questionnaire, original questions are in black font and new questions in blue. The 2015 questionnaire was based on a similar study carried out for the AA Foundation in 1996.
3. Drivers and ex-drivers aged 60 and over were recruited by Opinium Market Research to take part in a questionnaire survey. The questionnaire was available online for a period of 17 days from 24th June to 10th July 2020 inclusive.
4. The questionnaire explored attitudes to a range of potential methods to increase the safety of older drivers such as optical and medical assessments, driving assessments and more flexible driver licensing.

## Key Findings

### 1. Participants

- Completed valid questionnaires were received from 3062 drivers and ex-drivers from across the UK.
- Similar numbers of men and women took part (Male: 1646, 54%, Female: 1416, 46%).
- The age range was 60 to 100 years, with an average age of 70.4 years.
- Approximately half the respondents were aged under 70 (52%) and half were aged 70 or over (48%).
- Most respondents were currently driving (2668 people, 87%). Three hundred and ninety-four people (13%) had given up driving (ex-drivers).
- The survey was distributed 4 months after the start of the Covid-19 pandemic. Due to the pandemic, 532 people had missed a routine sight test, 127 people had suffered a visual problem but were unable to get it checked, and 396 respondents had a medical problem but were unable to get it checked.

## 2. Ex-Drivers

- Of the ex-drivers, only 36% (141 people) had surrendered their driving licence. The remainder had given up driving, but still held a valid licence.
- Over half the ex-drivers were aged 70 or over (57%).
- Ex-drivers were more likely than current drivers to live in towns or cities with frequent public transport.
- Ex-drivers were more likely to have held lower level occupations and live in less prosperous areas.
- Ex-drivers were more likely to have a medical condition which may affect driving, particularly a visual condition.
- Ex-drivers rated their agreement with four statements on what had influenced their decision to give up driving. 45% said that a gradual reduction in driving influenced their decision; 43% decided not resume driving after extended period of not driving; 37% said circumstances outside their control influenced their decision to stop driving. Only 13% felt under pressure from others to give up driving.
- The three main reasons for giving up driving were 1) health or medical condition; 2) cost; 3) failing eyesight.
- The majority of ex-drivers felt they gave up driving at the right time, however more women than men felt they had given up driving too early.

## 3. Current drivers

- Most drivers (79%) rated their driving ability as good to excellent.
- Most drivers (85%) rated their confidence as a driver as good to excellent.
- Men had a higher average mileage rate (6607 miles/year) than women (4708 miles/year).
- Drivers aged 60 – 69 years drove an average of 6385 miles/year.
- Drivers aged 70 and over drove an average of 5130 miles/year.
- Most drivers (79%) said that driving was very or extremely important to them.
- Women were significantly more likely to rate driving as extremely important than men.
- 30% of current drivers (32% of women, 29% of men) lived in a rural or village location.
- Rural residents rated the importance of driving more highly than urban residents.
- Over 40% of current drivers said they never avoided driving in difficult conditions, such as driving at night, driving in bad weather, driving long distances, or driving in rush hour.
- Over half of current drivers said they never avoided driving on busy or unfamiliar roads or on motorways.
- Drivers aged 70 and over were significantly more likely than younger drivers to avoid driving at night, at night in the rain, and driving long distances.
- Just under 40% of all current drivers said they had forgotten where they left their car, albeit rarely.
- A third of current drivers had not checked the current driving regulations for over 5 years.
- Drivers aged 70 and over had checked the current driving regulations more recently than younger drivers, probably because they had visited the DVLA website to renew their licence at age 70.
- Only 164 drivers said they had been involved in an accident whilst driving in the last three years. Of these, the majority were men, which may be partially explained by their higher mileage.
- 76% of accidents took place on a public road and 24% were in a car park, driveway or private road. Most respondents (60%) said the accident was not their fault. For 57% of accidents, the respondent's car was hit by another vehicle, but 43% hit another vehicle or object.
- Women were more likely to sometimes have driving lapses, e.g. forget where they left their car. Men were more likely to make the error 'fail to see pedestrians crossing'.
- The majority of current drivers (97%) say they intend to continue driving for the foreseeable future.
- Only 9% of current drivers (236 of 2668) had ever considered giving up.
- Overall, drivers expected to continue driving for an average of 12.3 years.
- Drivers aged 60 – 69 years expected to continue driving for an average of 15 years.
- Drivers aged 70 and over expected to continue driving for an average of 9 years.

- Overall, the average age at which people think they will give up driving was 82. For drivers aged under 70 the average age for giving up was 79.4 and for drivers aged 70 and over the age of giving up was 85.3.
- The most important reasons to continue driving were for independence and convenience.
- The Covid-19 situation had not affected drivers' thoughts about giving up driving. Only 72 respondents (3%) said it had, with 61% more likely to give up and 39% less likely.
- Most current drivers would consider giving up driving if they had a health condition or a health professional advised them to stop driving.
- General Practitioners (GPs)/Doctors and Opticians/Optometrists are the most influential people to give advice on giving up driving.

### 4. All Respondents – Attitudes to potential methods to increase the safety of older drivers

- Over 55% agreed with the statement 'senior drivers* should be re-tested every 5 years after licence renewal'. (* senior drivers were purposely not defined in the questionnaire, but the term is generally taken to refer to drivers aged 70 and over).
- 83% agreed with the statement 'senior drivers should pass an eyesight test every 5 years after licence renewal'.
- 85% agreed that all drivers should pass an eyesight test every 10 years after first passing their driving test.
- 56% said that drivers aged around 70 should be required to have a medical examination, but 23% were neutral and 21% disagreed.
- 94% agreed that GPs should be required to inform patients if their medical condition may affect their fitness to drive.
- 46% agreed that a flexible licensing system should be introduced which, for example, might restrict drivers to using local roads, or driving in daylight hours. Younger drivers were more in favour of flexible licensing than older drivers.
- 65% said that if there a DIY kit was available to test their driving fitness they would use it, 24% were neutral and 12% said they would not use it.

## Conclusions and Recommendations

Most current drivers wish to continue driving for as long as they are physically able. The majority had never considered giving up driving, believing themselves to be competent and confident drivers. Most current drivers said they never avoided driving in difficult or stressful situations, for example driving at night, on busy roads or in bad weather. Being able to drive gave them independence and mobility, and the convenience of driving was important for most. Many said that driving enabled them to maintain their lifestyle and quality of life. However, if a doctor or optometrist were to advise them to stop driving, most drivers said they would act on that advice.

This survey was distributed during the Covid-19 pandemic and respondents were asked how this had affected their current mobility and future plans. Few drivers said that Covid had affected their future driving plans, but of those who did the majority said they were more likely to give up driving. Of concern was that, due to Covid, many people had missed a routine sight test, and 127 people had suffered a visual problem but were unable to get it checked. These issues could compromise their driving safety.

Many ex-drivers had retained their driving licence, even though they had stopped driving. Poor health was the most important factor in deciding to give up driving, followed by the cost of motoring and failing eyesight. Women were more likely to believe they had given up driving too early, whereas slightly more men thought they may have left it too late. It is likely that older drivers would benefit from driver training aimed at building confidence and driving competence. The results of this survey suggest that older women may benefit most.

Health, and particularly visual health, was found to be very important to fitness to drive. The vast majority of respondents agreed that doctors should be required to inform patients if their medical condition may affect their fitness to drive, and most respondents agreed that 'senior drivers' should pass an eyesight test and have a medical examination in order to renew their driving licence. The results of this survey indicate widespread acceptability for a change from the current system of self-certification for driver licence renewal at age 70 to a system which requires either an eye test, medical examination or both. Most respondents agreed that drivers of all ages should pass an eyesight test every ten years after passing the driving test. It appears that attitudes towards such testing have become more positive in the twenty-five years between the original 1996 study and the current study.

## Recommendations

- The government should conduct a comprehensive review of the driver licensing and testing system in relation to the ever growing number of drivers over the age of 70 and beyond.
- Joint education campaigns are required to help drivers start to plan for giving up driving at an earlier stage. These could involve partnership working between government, health professionals, pension advisors, financial advisors and travel experts.
- A wider range of easily accessible mature driver focussed consumer information is needed on accessible vehicle designs, mobility features, journey planning and mobility costs to help inform these campaigns.
- As part of this approach mature driver reviews should be encouraged and the government should consider the idea of offering them on prescription to encourage uptake and equal access.
- GPs and Opticians/Optometrists are the most trusted and influential advisers on fitness to drive for older drivers, but their role in sharing information and advising on giving up driving must be clarified.
- Given this role, training for medical professionals and Opticians/Optometrists in the detection of driving issues, the best ways to discuss it, and the offering of advice must be updated in consultation with the professional governing bodies and colleges.
- Given the support for regular eyesight testing the government should consult on the right age to include evidence of an eyesight test as part of the licence renewal process as soon as possible.
- Any additional technology capacity required by agencies such as the DVLA to allow this to happen should be fully funded.
- The implications of the Covid-19 pandemic on the future mobility choices of older drivers would be a useful topic for further research.

# Study Aims and Objectives

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# 1. Background and Introduction

In common with most developed countries, the UK has an aging population. Latest available figures from the Office for National Statistics (ONS) show that in 2019 the UK population was 66.8 million and there were over 16.1 million people aged 60 or over in the UK, representing almost a quarter (24.1%) of the population (ONS, 2021a). Within this total, 9 million people (13.5%) were aged 70 or over. Figure 1 shows the age structure of the UK in 2018 and projected to 2043 (ONS, 2021b).

The UK is a car-based society, in December 2020 there were 41,660,578 people with full driving licences which represents 78% of the UK population aged 17 and over and thus eligible to drive (Department for Transport, 2021; Department for Infrastructure, Northern Ireland, 2020). In Great Britain, the percentage of adults aged 70 and over who hold a driving licence has increased from 15% in 1975 to 67% in 2019 (DfT, 2020). For women, in 1975 only 4% of those aged 70 and over held a driving licence, rising to 55% in 2019. In the UK there are currently 5.3 million drivers aged 70 and over who hold a valid driving licence, and over 12 million drivers aged 60 and over (DfT, 2021, DfI, 2020).

Improved life expectancy has led to an increase in the number of people living into their 80s and beyond. Car ownership increased significantly during the twentieth century, and those who learned to drive in the 1940s, '50s, '60s and early '70s are today's 'older drivers'. The UK system of driver licensing through self-declaration means that a person can pass their driving test in their teens and their fitness to drive need not be assessed again. Although the driving licence needs to be renewed when the driver reaches the age of 70, it is the responsibility of the driver to declare that they are fit to drive by means of self-certification. Whilst most people will make honest declarations, some may be unaware of gradual physical, sensory or cognitive changes which may affect their ability to drive safely. Furthermore, not all older drivers are able to recognise when they are no longer fit to drive and when it is time to stop driving. Health professionals have an important role in advising patients when their physical or mental health may affect their fitness to drive, but there is evidence that they do not routinely provide such advice (Hawley, 2010).

Access to a car and the ability to drive is important for continuing mobility and quality of life for older drivers (Oxley and Whelan, 2008). Driving provides freedom and independence, and having one's own car reduces reliance on other people or public transport (Molnar et al, 2013). It has been suggested that older drivers compensate for declines in cognitive or psychomotor skills through self-regulation, by avoiding risky or difficult driving situations such as driving at night in the rain or parallel parking (Baldock et al, 2006). When driving becomes more difficult or impossible due to health constraints, drivers will need to make a decision about whether to keep driving. Giving up driving has been associated with increased social isolation (Liddle et al, 2004, Ragland et al, 2004) and even depression (Ragland et al, 2005). Consequently, a decision to stop driving requires careful consideration and planning. If negative consequences, such as social isolation, are to be avoided, alternatives to the car should be available. However, public transport alternatives tend to be limited, especially for people living in rural or semi-rural locations (Box et al, 2010), and not always accessible to older people with limited mobility or disability.

In 2015, a large study of drivers aged 55 and over was carried out for IAM RoadSmart which surveyed 2619 drivers (2402 were currently driving and 217 had stopped driving) (Hawley, 2015). The study was designed to repeat and update a previous study carried out by Rabbitt and colleagues (1996) for the Automobile Association. The 2015 study utilised a detailed questionnaire to collect data on the driving habits of current drivers, their attitudes towards self-regulation and giving up driving, and asked ex-drivers why they gave up driving and which factors were involved in their decision. The study found that although most drivers believed they were good drivers, there was a general acceptance amongst respondents for stricter licensing rules such as mandatory sight tests for all drivers upon licence renewal. There was also support for the idea of a do-it-yourself kit for assessing fitness to drive, such as measuring reaction times, hazard perception and concentration.

Since the publication of the 2015 study there have been further calls for the introduction of sight tests at licence renewal for example from the UK Older Driver Taskforce (Road Safety Foundation, 2016). Consequently, we decided to carry out a second study, raising the age to 60 and over, and further exploring concepts of self-assessment and self-regulation.

The current study was carried out during the Covid-19 pandemic. The situation was frequently changing and a Covid timeline is presented in Appendix II to show how the survey fitted within the various restrictions on mobility (Transport Technology Forum, 2021). This presented the opportunity to explore how the early stages of the pandemic was affecting senior drivers and their mobility.

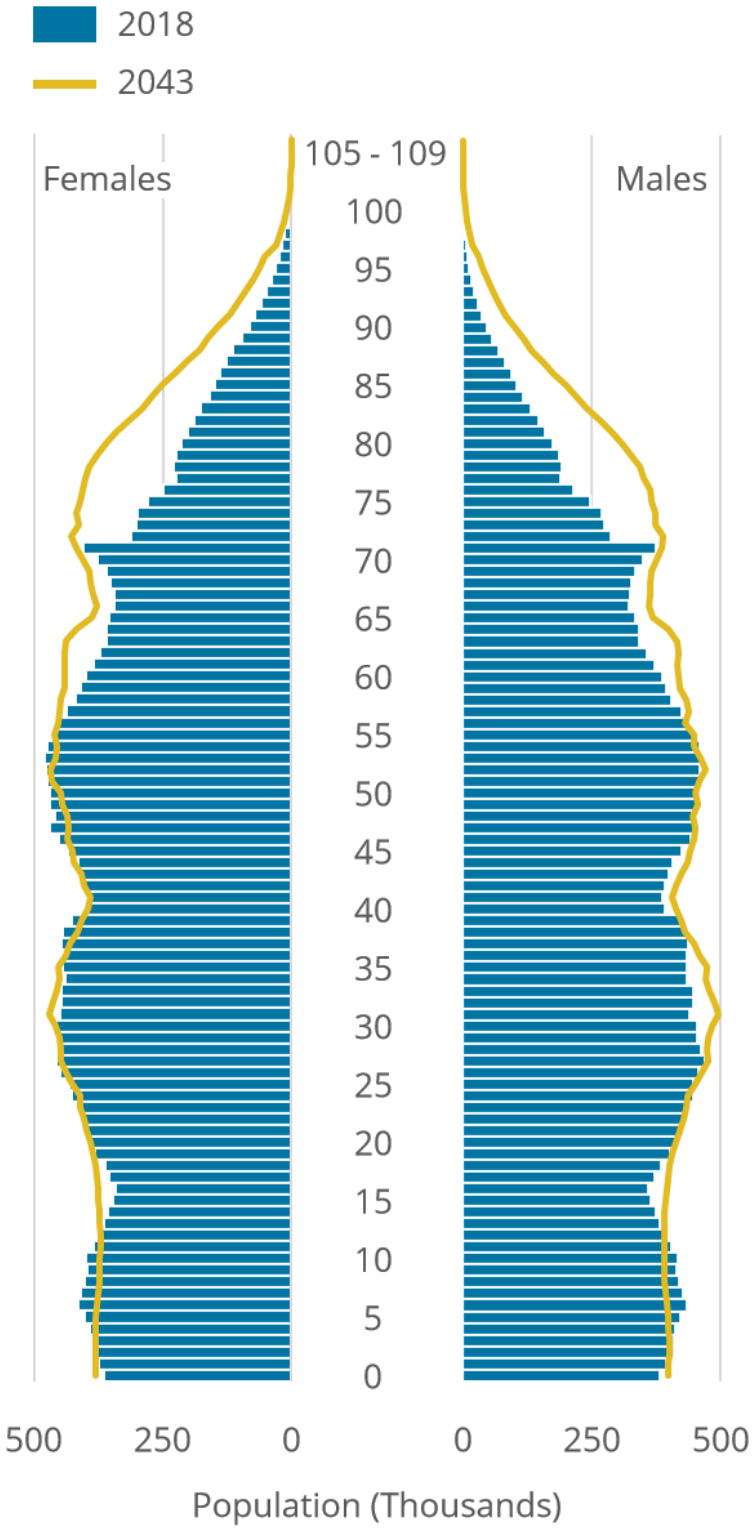



**Figure 1 Age structure of UK Population 2018 and projected to 2043 (ONS, 2021b)**

# 2. Methods

This study surveyed older drivers using a detailed self-completed questionnaire. The methodology is based on two earlier studies, the first carried out in 1996 and the second in 2015. The target age group for the 2015 study was 55 and over, this was to maintain compatibility with a similar earlier study conducted by Rabbitt, et al (1996) for the AA Foundation for Road Safety Research. For the current study the age group was raised to 60 and over with the aim of recruiting higher numbers of older drivers.

## 2.1 Recruitment

A market research company, Opinium, was commissioned to provide access to adult drivers and ex-drivers within the required age group from their Research Panel. This company had been used for the 2015 study. Opinium also out-sourced a further group of older adults to ensure that drivers aged 75 and over were reached. Unfortunately, this company were only able to provide partial postcodes for their respondents which restricted the analysis of social and economic deprivation for this group. The use of IAM's register of members and ex-members was considered, but it was decided that this group of drivers would not be typical of ordinary drivers.

## 2.2 Questionnaire development

A detailed questionnaire was developed for the previous study carried out in 2015. This questionnaire had been devised and piloted with a group of older drivers aged between 60 and 75. Following the pilot study, the questionnaire was revised and refined. The final version was distributed to members of a Warwick University Research Panel and to a market research panel. In total 2619 people completed the questionnaire.

For the current study, the 2015 questionnaire was revised and some modifications made based on insights gained from results of the previous study. Some questions were added to the questionnaire to take account of the Covid-19 pandemic. The questions concerning self-regulation were adapted from the rating scales devised by Baldock et al (2006) and Sullivan et al (2011). Questions about driving behaviour were taken from the Manchester Driver Behaviour Questionnaire (DBQ) (Reason et al, 1990).

A copy of the study questionnaire is presented in Appendix I, original questions are in black font and new questions in blue. Most questions require respondents to tick a box, and open ended questions were kept to a minimum. The questionnaire was converted to an online format by Opinium and this was pilot tested. Screening questions were introduced to screen out people who had never driven, people who did not live in the UK, and those who were aged under 60. Based on piloting, the questionnaire could be completed in 15 minutes.

## 2.3 Calculation of socio-economic status and social classification

Socio-economic status and social class were calculated for each respondent based on their current or most recent job title using the Office for National Statistics Coding Tool (ONS, 2021c). Socio-economic status was determined using the National Statistics Socio-economic Classification (NS-SeC) 8 class version, shown in Table 1 below (ONS, 2021d). Social class was determined using the Standard Occupational Classification (SOC2010) (ONS, 2021e) and is reproduced in Appendix III.

**Table 1: NS-SEC 8 Class version (ONS, 2021d)**

| Class | Title |
|---|---|
| 1 | Higher managerial administrative and professional occupations |
| 2 | Lower managerial, administrative and professional occupations |
| 3 | Intermediate occupations |
| 4 | Small employers and own account workers |
| 5 | Lower supervisory and technical occupations |
| 6 | Semi-routine occupations |
| 7 | Routine occupations |
| 8 | Never worked and long-term unemployed |

## 2.4 Calculation of social deprivation

Levels of deprivation were calculated using postcode data. Respondents were asked to provide their postcode, either full or partial, with an option to not provide their postcode at all: 'prefer not to say'. Where a valid full postcode was provided, a deprivation score was calculated using the most up-to-date Indices of Deprivation for each nation: English Indices of Multiple Deprivation (IMD2019); Scottish Indices of Multiple Deprivation (SIMD 2020); Welsh Indices of Multiple Deprivation (WIMD 2019); and Northern Ireland Multiple Deprivation Measure (NIMDM 2017).

The English Indices of Deprivation (IoD2019) use 39 separate indicators, organised across seven domains of socioeconomic disadvantage: income, employment, health and disability, education, housing, environment, and crime (Ministry of Housing, Communities and Local Government, 2019a, 2019b). These indicators are combined and weighted to calculate the Index of Multiple Deprivation 2019 (IMD2019). The methodology is the same as that used to calculate IMD2010 which was used in our previous study.

The IMD2019 measures relative levels of deprivation in small areas in England called lower-layer super output areas (LSOAs). The IMD2019 ranks every small area in England from 1 (most deprived area) to 32,844 (least deprived area). Deprivation 'deciles' are published alongside ranks. Deciles are calculated by ranking the 32,844 small areas in England from most deprived to least deprived and dividing them into 10 equal groups. These range from the most deprived 10 per cent of small areas (ranked 1) nationally to the least deprived 10 per cent of small areas nationally (ranked 10). For the purpose of this study IMD2019 was calculated using the Ministry of Housing, Communities and Local Government (2020) English Indices of Deprivation 2019 Postcode Look-up Tool.

A comparable methodology is used to determine deprivation levels in LSOAs in Wales (Welsh Index of Multiple Deprivation (WIMD 2019), Welsh Government, 2019) and Data Zones in Scotland (Scottish Index of Multiple Deprivation (SIMD 2020), The Scottish Government, 2020a). Data Zones have a slightly smaller average population than LSOAs. For each nation a rank of 1 is most deprived and a rank of 10 is least deprived. For the purpose of this study WIMD 2019 was calculated using the Postcode to WIMD Lookup file (Welsh Government, 2019). SIMD 202 was calculated using the Scottish Index of Multiple Deprivation 2020v2 postcode lookup file (Scottish Government, 2020b).

Northern Ireland (NI) uses a similar methodology to provide a ranking of multiple deprivation (NIMDM 2017a) for the 890 Super Output Areas (SOAs) in NI from 1 (most deprived) to 890 (least deprived) but does not publish deciles (Northern Ireland Statistics and Research Agency, 2017). NIMDM was calculated using their lookup tool (Northern Ireland Statistics and Research Agency, 2017b).

Output Area Classification (OAC) Supergroups, based on the 2011 UK Census, were also calculated from full postcodes. The 2011 OAC is a hierarchical classification, consisting of three tiers of supergroups, groups and subgroups for output areas (in England, Wales and Scotland) and small areas (in Northern Ireland) (ONS, 2021f). The labels and descriptions used for these groups provide an illustration of the characteristics of areas in terms of their demographic structure, household composition, housing, socio-economic characteristics and employment patterns, but there will be a degree of variability with these characteristics within each output area (ONS, 20121f). There are eight Supergroups forming the top tier of the hierarchy which provide the most generic descriptions of the population in the UK. A full description of the definitions is given in the ONS (2015) publication Pen Portraits for the 2011 Area Classification for Output Areas.

## 2.5 Data analysis

At the close of the survey, Opinium provided an Excel spreadsheet of the results. Data analysis was performed using the Statistical Package for the Social Sciences (SPSS) Version 24. Continuous data were analysed using comparison of means (independent samples t-test). Relationships between categorical data were analysed using Chi-squared cross-tabulations. Where appropriate, analysis of variance statistics (ANOVA) were carried out on grouped variables.

Results were deemed to be statistically significant if the probability value (P value) is less than 0.05. This means that there is a less than 5% probability that the relationship between variables was caused by chance alone, and we are therefore 95% confident that the result is significant and reliable. A result is described as highly significant when the p value is less than 0.01, meaning we are 99% confident that the result is significant.

For the purpose of analysis, the deprivation scores were placed into one of five groups of equal frequency (quintiles), ranging from the 20% least deprived areas to the 20% most deprived areas.

Qualitative data were analysed with the aid of NVivo Pro12 software (QSR International, 2018) to explore free-text responses.

# 3. Results

The online survey was available for 17 days. Within this period a total of 3066 questionnaires were completed. Four were discarded as they had incomplete or inconsistent answers, leaving a total of 3062 valid questionnaires for analysis. This was an increase on the 2619 responses received in the 2015 study.

## 3.1 Age, Gender and Driving Status

The age range was 60 to 100 years, with a mean age of 70.45 (standard deviation (SD): 7.55). Despite raising the minimum age of the study group from 55 to 60 years, the mean age found in the 2020 study is very similar to that found in 2015 (69.45 years, SD: 7.24, age range: 55 to 101 years).

Responses were received from more men (1646, 53.8%) than women (1416, 46.2%).

There were similar numbers of respondents aged under 70 (1583, 51.7%) and aged 70 or over (1479, 48.3%). For men, the age range was 60-94, mean age 70.62, SD = 7.67. For women, the age range was 60-100, mean age 70.16, SD = 7.40.

Of the 3062 respondents, 2668 (87.1%) were currently driving and 394 (12.9%) were ex-drivers. Of the ex-drivers just over one third (141, 35.8%) had surrendered their driving licence. Table 2 shows the driving status of respondents over the two survey periods.

As in the 2015 survey, there was a strong bias towards women among the ex-drivers, again two thirds of ex-drivers were women (261, 66.2%) and only 133 ex-drivers were men (33.8%). There was a highly significant difference between males and females for driving status ($p = 0.0001$, $X^2 = 77.76$, $df = 1$). These proportions were the same for those who stopped driving and surrendered their licence (65.2% of women, 34.8% of men) and those who stopped driving and kept their driving licence (66.8% of women, 33.2% of men).

Age was associated with driving status, those aged 70 and over were significantly more likely to be ex-drivers than those aged 60-69 years (56.6% compared to 43.4%, $p = 0.001$, $X^2 = 12.46$, $df = 1$). Ex-drivers were an average of 3 years older than current drivers. Figure 2 shows the age profile of current drivers and ex-drivers.

**Table 2: Current driving status – comparison of 2015 to 2020 responses**

| Respondent statement | 2015 Frequency | 2015 Percent | 2020 Frequency | 2020 Percent |
|---|---|---|---|---|
| I am a current driver and hold a valid driving licence | 2402 | 91.7% | 2668 | 87.1% |
| I am no longer driving but still hold a valid driving licence | 134 | 5.1% | 253 | 8.3% |
| I am no longer driving and I do not hold a valid driving licence | 83 | 3.2% | 141 | 4.6% |
| Total | 2619 | 100% | 3062 | 100% |

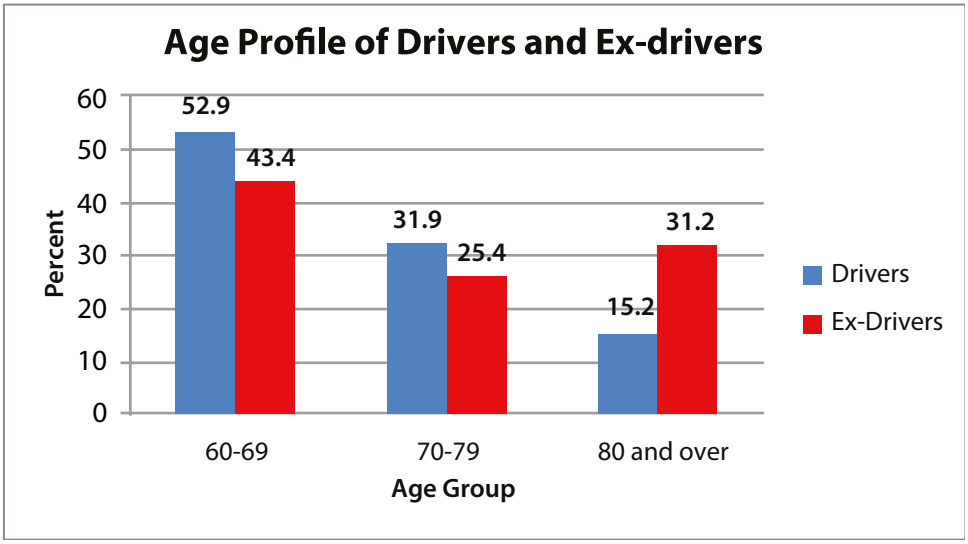



**Figure 2: Age profile of current drives and ex-drivers (n=3062)**

## 3.2 Geographical distribution

The geographical distribution of our respondents was widespread. Table 3 shows the distribution by region and country. The majority of respondents lived in England (2615, 85%), 221 (7.2%) were from Scotland, 164 (5%) from Wales, and 62 (2%) from Northern Ireland.

**Table 3: Regional and national distribution of respondents**

| Region | Frequency | Percent |
|---|---|---|
| North East | 164 | 5.4 |
| North West | 342 | 11.2 |
| Yorkshire & Humberside | 273 | 8.9 |
| East Midlands | 226 | 7.4 |
| West Midlands | 232 | 7.6 |
| East of England | 337 | 11.0 |
| London | 213 | 7.0 |
| South East | 503 | 16.4 |
| South West | 325 | 10.6 |
| Wales | 164 | 5.4 |
| Scotland | 221 | 7.2 |
| Northern Ireland | 62 | 2.0 |
| **Total** | **3062** | **100.0** |

Respondents were asked about the type of area they lived in. The results are presented for current and ex-drivers (Table 4, Figure 3). Just over 60% of respondents lived in a rural or suburban area, only 11% were city dwellers and 28% lived in a town. There were no differences between men and women, 61.5% of men and 62.5% of women lived in a rural or suburban area. There was a statistically significant difference between drivers and ex-drivers for location of residence, with more ex-drivers living in cities and significantly fewer living in rural areas ($X^2 = 32.98$, df = 3, $p \leq 0.0001$). These findings are similar to the previous studies carried out in 1996 and 2015.

**Table 4: Area of residence 2020: Drivers and Ex-drivers**

| Area of residence | Drivers (%) | Ex-drivers (%) | Total (%) |
|---|---|---|---|
| City | 274 (10.3%) | 74 (18.8% | 348 (11.4%) |
| Town | 743 (27.8%) | 116 (29.4%) | 859 (28.1%) |
| Suburban | 849 (31.8%) | 123 (31.2%) | 972 (31.7%) |
| Rural or Village | 802 (30.1%) | 81 (20.6%) | 883 (28.8%) |
| **Total** | **2668 (100%)** | **394 (100%)** | **3062 (100%)** |

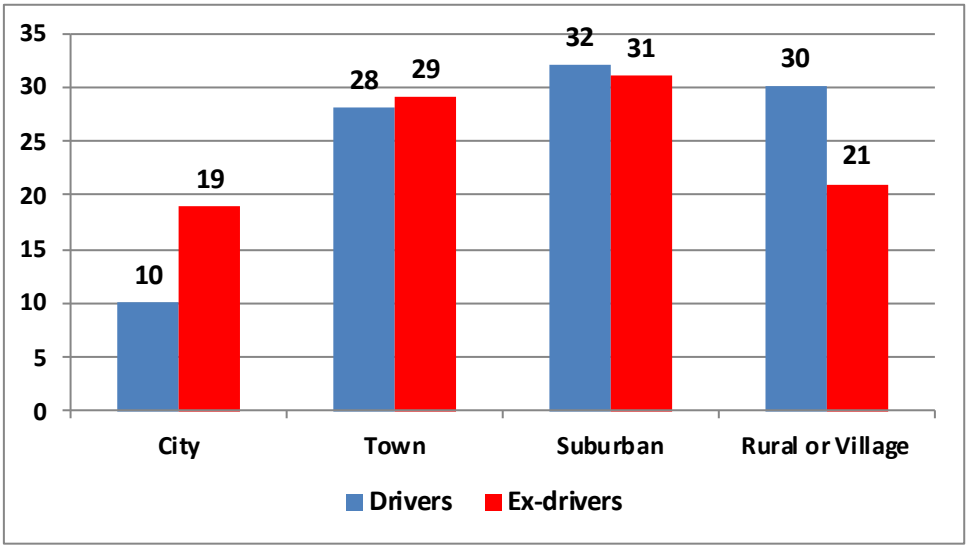



**Figure 3: Area of Residence: Percentage of current and ex-drivers (n=3062)**

## 3.3 Mobility and ease of getting around before and during the Covid-19 pandemic

Living in a city or town is likely to provide access to regular public transport and thus make it easier to remain active without the need to drive. Because the Covid-19 pandemic meant the imposition of restrictions on travel and transportation, respondents were asked to describe the availability of public transport before the pandemic.

Over two thirds of respondents said that pre-Covid-19 public transport was frequent in their area (Table 5, Figure 4). Findings were very similar to those reported in our 2015 study. There was a significant difference between drivers and ex-drivers, with ex-drivers reporting more frequent public transport ($X^2$ = 19.95, df = 2, p ≤ 0.001).

**Table 5: Frequency of public transport 2020 pre Covid-19: Drivers and Ex-drivers**

| Frequency of public transport | Drivers (%) | Ex-drivers (%) | Total (%) |
|---|---|---|---|
| Frequent | 1792 (67.2%) | 308 (78.2%) | 2100 (68.6%) |
| Infrequent | 787 (29.5%) | 80 (20.4%) | 867 (28.3%) |
| Not available | 89 (3.3%) | 6 (1.5%) | 95 (3.1%) |
| **Total** | **2668 (100%)** | **394 (100%)** | **3062 (100%)** |

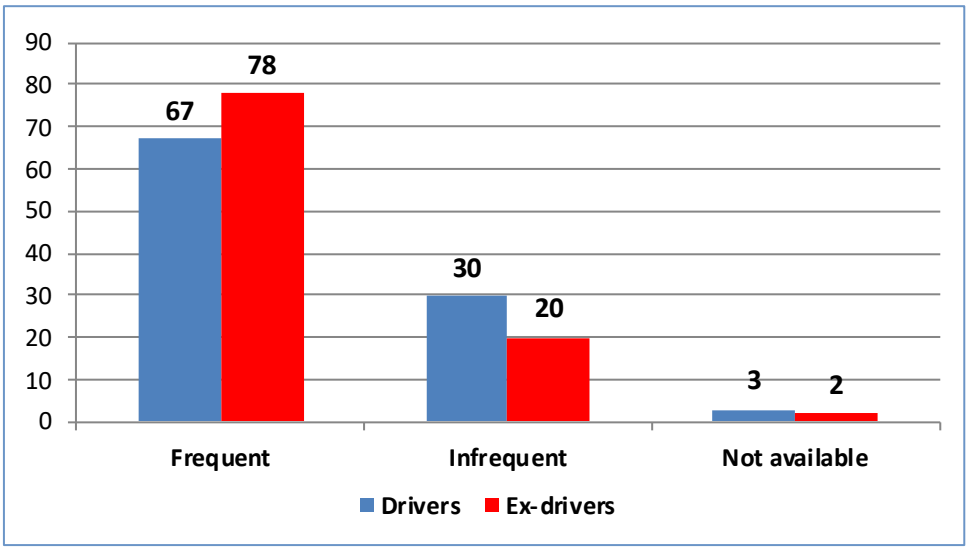



**Figure 4: Frequency of Public Transport: Percentage of Drivers and Ex-drivers (n=3062)**

Respondents were asked to describe their usual means of getting around before the Covid-19 pandemic. Table 6 shows the results for drivers and ex-drivers. For car drivers driving their car was their most usual means of transport, 30 ex-drivers also drove a car pre-Covid. There were significant differences between drivers and ex-drivers for most means of transport used except for cycling and motorcycling.

**Table 6: Means of transport pre-Covid-19 (n=3062)**

| Means of Transport | Drivers (%) n=2668 | Ex-drivers (%) n=394 | Total (%) | Significance |
|---|---|---|---|---|
| Car as driver | 2547 (95.5%) | 30 (7.6%) | 2577 (84.2%) | $p \leq 0.0001$ |
| Car as passenger | 648 (24.3%) | 186 (47.2) | 834 (27.2%) | $p \leq 0.0001$ |
| Private hire | | | | |
| e.g taxi | 132 (4.9%) | 73 (18.5%) | 205 (6.7% | $p \leq 0.0001$ |
| Public transport | 853 (32.0%) | 246 (62.4%) | 1099 (35.9%) | $p \leq 0.0001$ |
| Community transport | 6 (0.2%) | 15 (3.8%) | 21 (0.7%) | $p \leq 0.0001$ |
| Motorbike | 26 (1.0%) | 2 (0.5%) | 28 (0.9%) | not significant |
| Bicycle | 173 (6.5%) | 18 (4.6%) | 191 (6.2%) | not significant |
| Walk | 1059 (39.7%) | 210 (53.3%) | 1269 (41.4%) | $p \leq 0.0001$ |
| Mobility scooter/ wheelchair | 3 (0.1%) | 7 (1.8%) | 10 (0.3%) | $p \leq 0.0001$ |

All respondents were asked to state whether their use of various means of transport had decreased, increased or stayed the same since the Covid-19 pandemic. As the survey was active in June and July 2020 they were asked about their transport use over the last three months. Results showed a large decrease in car use which corresponds with the travel restrictions associated with the first Covid Lockdown (Table 7). There was a significant increase in walking although over a third of respondents also said they walked the same as before Covid. Use of public transport dropped from 36% of respondents before Covid to 21% in the months after Covid. Figure 5 shows the results for current drivers only, which follows a similar pattern.

**Table 7: Impact of Covid-19 on transport use (all respondents n=3062)**

| Means of Transport | Less than before | More than before | Not used at all | Same as before |
|---|---|---|---|---|
| Car | 1717 (56.1%) | 223 (7.3%) | 424 (13.8%) | 698 (22.8%) |
| Private hire e.g taxi | 223 (7.3%) | 38 (1.2%) | 2534 (82.8% | 267 (8.7%) |
| Public transport | 642 (21.0%) | 28 (0.9%) | 2099 (68.5%) | 293 (9.6%) |
| Community transport | 103 (3.4%) | 10 (0.3%) | 2809 (91.7%) | 140 (4.6%) |
| Motorbike | 42 (1.4%) | 8 (0.3%) | 2885 (94.2%) | 127 (4.1%) |
| Bicycle | 74 (2.4%) | 173 (5.6%) | 2515 (82.1%) | 300 (9.8%) |
| Walk | 415 (13.6%) | 1172 (38.3%) | 400 (13.1%) | 1075 (35.1%) |

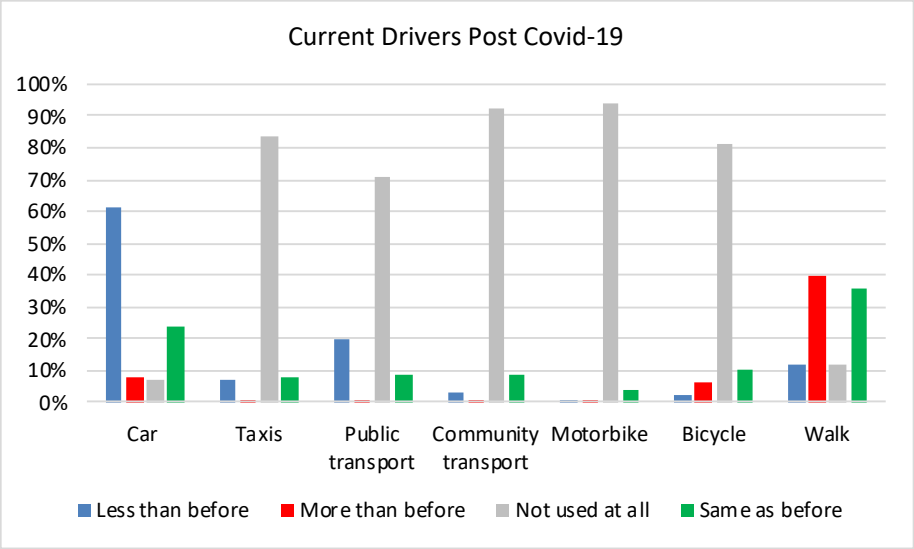



**Figure 5: Impact of Covid-19 on transport use, current drivers (n=2668)**

## 3.4 Ease of getting around without a car

Both current and ex-drivers were asked how easy it would be to get around without a car. Table 8 shows the results. There was a significant difference between groups, with more current than ex-drivers believing it would be difficult or very difficult ($p = 0.0001$, $X^2 = 45.46$, $df = 4$). Almost half the ex-drivers felt that getting around without a car was easy, compared to a third of current drivers (Figure 6).

**Table 8: Ease of getting around without a car: Drivers and Ex-Drivers**

| Ease of getting around without a car | Drivers (%) | Ex-drivers (%) | Total (%) |
|---|---|---|---|
| Very Difficult | 467 (17.5%) | 51 (12.9%) | 518 (16.9%) |
| Difficult | 737 (27.6%) | 68 (17.3%) | 805 (26.3%) |
| Neither difficult nor easy | 607 (22.8%) | 86 (21.8%) | 693 (22.6%) |
| Easy | 656 (24.6%) | 137 (34.8%) | 793 (5.9%) |
| Very Easy | 201 (7.5%) | 52 (13.2%) | 253 (8.3%) |
| **Total** | **2668 (100%)** | **394 (100%)** | **3062 (100%)** |

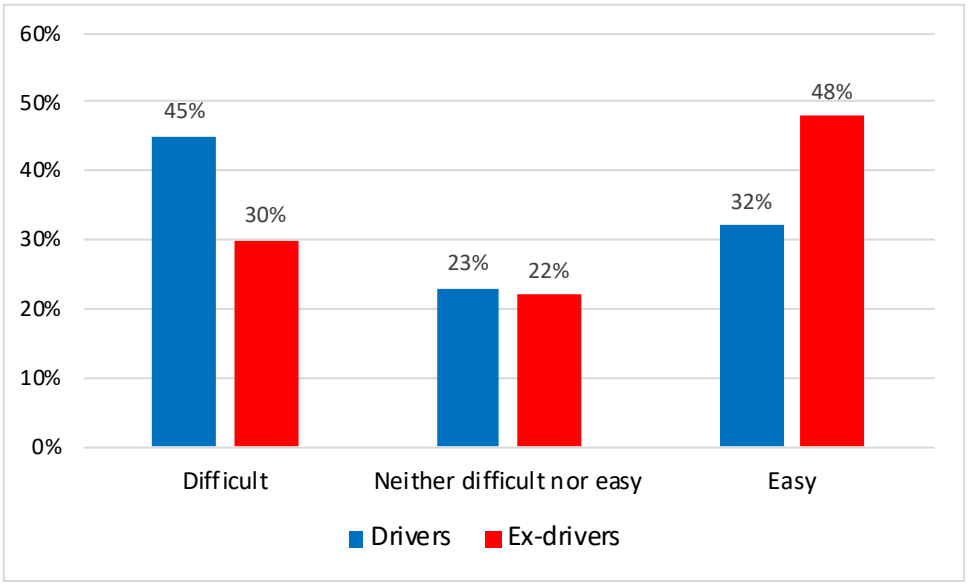



**Figure 6: Ease of getting around without a car, current and ex-drivers**

When examined by country, there were no significant differences between responses from England, Wales, Scotland and Northern Ireland, with around a third of respondents (26% - 36%) in each country finding it easy to get around without a car, between 21% and 24% finding it neither difficult nor easy, and about half finding it difficult (40% – 52%).

When examined by Region, at least half of the respondents from the East Midlands; South West of England; Northern Ireland and Wales said it would be difficult to get around without a car. Those living in London were most likely to say it was easy (64%), followed by those living in the North East of England where 41% said it was easy. This reflects the access to frequent public transport; 93% of London respondents and 79% of respondents from the North East said public transport was frequent, while only 58% of those in the East Midlands and South West said the same.

## 3.5 Socio-economic status and social classification

Respondents described their current employment or final employment before retirement. All but two respondents provided a detailed job title which was then used to calculate their socio-economic status and social classification. The majority of respondents had retired from employment (2217, 72.4%). Five hundred and sixty-seven respondents (18.5%) had not retired, and 278 (9.1%) said they had partially retired. Significantly more ex-drivers (312, 79.2%) had retired than current drivers (1905, 71.4%) ($p = 0.001$, $X^2 = 10.42$, $df = 1$).

Table 9 shows the socio-economic status of current and ex-drivers using the NS-SEC 8 Classification system. There was a significant difference between the groups ($p = 0.0001$, $X^2 = 53.45$, $df = 8$), a higher proportion of current drivers belonged to higher socio-economic groups.

Table 10 shows the social classification for current and ex-drivers coded to SOC2010 V.31. There was a significant difference between the groups ($p = 0.0001$, $X^2 = 45.21$, $df = 8$). A higher proportion of ex-drivers were involved in intermediate and lower level occupations than current drivers, particularly in caring and personal services (e.g. care workers, hairdressers and barbers, teaching assistants), and sales (e.g. sales assistants, telephonists, cashiers, street traders). These findings are consistent with those of the 1996 and 2015 studies.

**Table 9: NS-SEC 8 Class: Drivers and Ex-drivers**

| NS-SEC 8 Class | Drivers (%) | Ex-Drivers (%) | Total (%) |
|---|---|---|---|
| 1.1: Large employers and higher managerial and administrative occupations | 175 (6.6%) | 17 (4.3%) | 192 (6.3%) |
| 1.2: Lower managerial and professional occupations | 481 (18.0%) | 33 (8.4%) | 514 (16.8%) |
| 2: Lower managerial, administrative and professional occupations | 641 (24.0%) | 92 (23.4%) | 733 (24.0%) |
| 3: Intermediate occupations | 666 (25.0%) | 128 (31.8%) | 791 (25.8%) |
| 4: Small employers and own account workers | 154 (5.8%) | 21 (5.3%) | 175 (5.7%) |
| 5: Lower supervisory and technical occupations | 137 (5.1%) | 17 (4.3%) | 154 (5.0%) |
| 6: Semi-routine occupations | 236 (8.8%) | 58 (14.8%) | 294 (9.6%) |
| 7: Routine occupations | 143 (5.4%) | 16 (4.1%) | 159 (5.2%) |
| 8: Never worked and long-term unemployed | 34 (1.3%) | 14 (3.6%) | 48 (1.6%) |
| **Total** | **2667 (100%)** | **393 (100%)** | **3060 (100%)** |

**Table 10: Occupation Categories coded to SOC2010 V.31: Drivers and Ex-drivers**

| Occupation Category | Drivers (%) | Ex-Drivers (%) | Total (%) |
|---|---|---|---|
| 1: Directors, managers, senior officials | 305 (11.4%) | 31 (7.9%) | 336 (11.0%) |
| 2: Professional occupations | 712 (26.7%) | 74 (18.8%) | 786 (25.7%) |
| 3: Associate professional and technical occupations | 393 (14.7%) | 45 (11.5%) | 438 (14.3%) |
| 4: Administrative and secretarial occupations | 584 (21.9%) | 121 (30.8%) | 705 (23.0%) |
| 5: Skilled trades occupations | 206 (7.7%) | 24 (6.1%) | 230 (7.5%) |
| 6: Caring, leisure and other service occupations | 133 (5.0%) | 32 (8.1%) | 165 (5.4%) |
| 7: Sales and customer service occupations | 134 (5.0%) | 36 (9.2%) | 170 (5.6%) |
| 8: Process, plant and machine operators | 102 (3.8%) | 13 (3.3%) | 115 (3.8%) |
| 9: Elementary trades and related occupations | 98 (3.7%) | 17 (4.3%) | 115 (3.8%) |
| **Total** | **2667 (100%)** | **393 (100%)** | **3060 (100%)** |

## 3.6 Levels of social deprivation

Deprivation scores were calculated using postcode data. Only 16 respondents preferred not to provide their postcode, a further 17 gave invalid full postcodes. However, for 963 respondents (31.5%) only the first half of the postcode was available and social deprivation could not be calculated. Valid full postcodes were available for 2081 respondents (68%). Deprivation Quintiles were calculated from Indices of Multiple Deprivation (IMD 2019 for England, SIMD 2020 for Scotland; WIMD 2019 for Wales; and NIMDM 2017 for Northern Ireland). Table 11 and Figure 7 present the results for current and ex-drivers. There were significantly more ex-drivers than current drivers in the more deprived group and more current drivers than ex-drivers in the least deprived group ($p = 0.0001$, $X^2 = 23.66$, $df = 4$). However, differences should be interpreted with caution due to small numbers in the ex-driver group.

**Table 11: Indices of Multiple Deprivation: Drivers and Ex-Drivers (England, Wales, Scotland and Northern Ireland)**

| IMD Quintile | Drivers (%) | Ex-Drivers (%) | Total (%) |
|---|---|---|---|
| 1. Most deprived 20% | 205 (11.3%) | 48 (18.4%) | 253 (12.2%) |
| 2. More deprived 40% | 310 (17.0%) | 47 (18.0%) | 357 (17.2%) |
| 3. Middle range 20% | 379 (20.8%) | 63 (24.1%) | 442 (21.2%) |
| 4. Less deprived 40% | 437 (24.0%) | 64 (24.5%) | 501 (24.1%) |
| 5. Least deprived 20% | 489 (26.9%) | 39 (14.9%) | 528 (25.4%) |
| **Total** | **1820 (100%)** | **261 (100%)** | **2081 (100%)** |

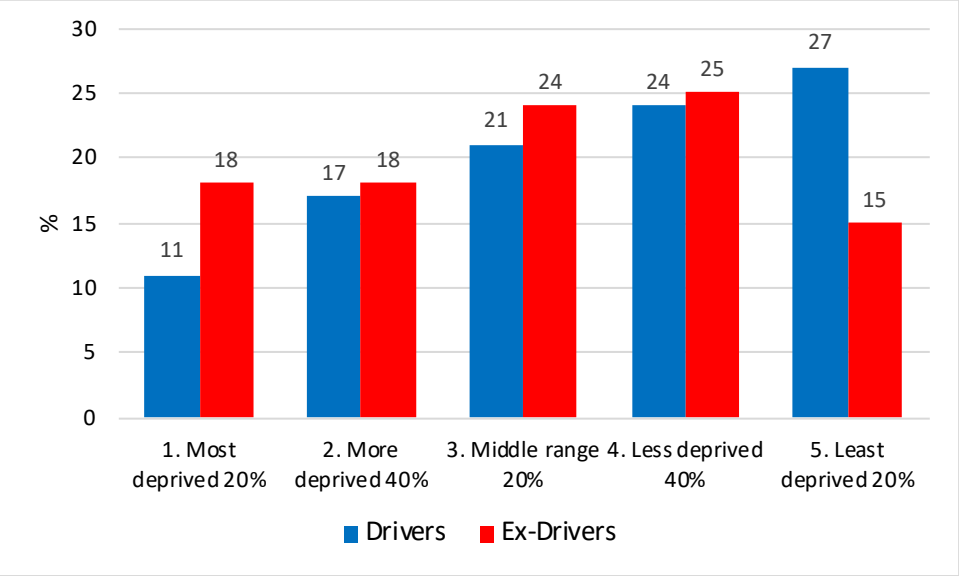



**Figure 7: Levels of Deprivation: Percentage of drivers and ex-drivers (n=2081)**

OAC 2011 Supergroups were identified from the full postcodes of 2045 respondents. Table 12 shows the results for drivers and ex-drivers. There was a significant difference between these groups ($p = 0.0001$, $X^2 = 84.45$, $df = 7$) with current drivers more likely to live in rural and suburban areas and ex-drivers more likely to live in constrained or hard-pressed areas.

**Table 12: Output Area Classification 2011 Supergroup: Drivers and Ex-Drivers**

| OAC 2011 Supergroup | Drivers (%) | Ex-Drivers (%) | Total (%) |
|---|---|---|---|
| Constrained City Dwellers | 107 (6.0%) | 34 (13.1%) | 141 (6.9%) |
| Cosmopolitans | 40 (2.2%) | 14 (5.4%) | 54 (2.6%) |
| Ethnicity Central | 24 (1.3%) | 11 (4.2%) | 35 (1.7%) |
| Hard-Pressed Living | 255 (14.3%) | 47 (18.1%) | 302 (14.8%) |
| Multicultural Metropolitans | 104 (5.8%) | 35 (13.5%) | 139 (6.8%) |
| Rural Residents | 293 (16.4%) | 25 (9.6%) | 318 (15.6%) |
| Suburbanites | 588 (32.9%) | 43 (16.5%) | 631 (30.9%) |
| Urbanites | 374 (21.0%) | 51 (19.6%) | 425 (20.8%) |
| **Total** | **1785 (100%)** | **260 (100%)** | **2045 (100%)** |

## 3.7 General health

Respondents were asked to state whether, in the past five years, they had been diagnosed or treated for a list of medical or visual conditions which may affect driving. Overall, 1278 (41.7%) said they had none of these conditions. Significantly more current drivers than ex-drivers reported none of these conditions ($p = 0.005$, $X^2 = 8.38$, $df = 1$). Table 13 presents the results for drivers and ex-drivers, Figure 8 shows the most frequently reported medical conditions. High blood pressure was the most frequently reported condition but there was no significant difference between drivers and ex-drivers. Eye conditions were reported significantly more frequently by ex-drivers. Hip or knee replacements were added to the list of medical conditions for the 2020 survey, and although reported by almost 10% of ex-drivers there was no significant difference between groups.

**Table 13: Medical or Visual Conditions 2020: Drivers and Ex-Drivers**

| Medical Condition | Drivers (%) | Ex-Drivers (%) | Total (%) | Significance level |
|---|---|---|---|---|
| Arthritis | 556 (20.8%) | 97 (24.6%) | 653 (21.3%) | Not significant |
| Alzheimer's disease | 1 (0%) | 1 (0.3%) | 2 (0.1%) | Not significant |
| Diabetes | 344 (12.9%) | 58 (14.7%) | 402 (13.1%) | Not significant |
| Epilepsy | 10 (0.4%) | 5 (1.3%) | 15 (0.5%) | $P = 0.05$, $X^2 = 5.63$ |
| Head injury | 4 (0.1%) | 1 (0.3%) | 5 (0.2%) | Not significant |
| Heart disease | 168 (6.3%) | 31 (7.9%) | 199 (6.5%) | Not significant |
| High blood pressure | 804 (30.1%) | 130 (33.0%) | 934 (30.5%) | Not significant |
| Stroke | 49 (1.8%) | 13 (3.3%) | 62 (2.0%) | Not significant |
| Cataract | 284 (10.6%) | 79 (20.1%) | 363 (11.9%) | $P = 0.001$, $X^2 = 29.08$ |
| Glaucoma | 75 (2.8%) | 23 (5.8%) | 98 (3.2%) | $P = 0.001$, $X^2 = 10.15$ |
| Hip or knee replacement | 191 (7.2%) | 38 (9.6%) | 229 (7.5%) | Not significant |
| None of the above | 1140 (42.7%) | 138 (35.0%) | 1278 (41.7%) | $P = 0.005$, $X^2 = 8.38$ |

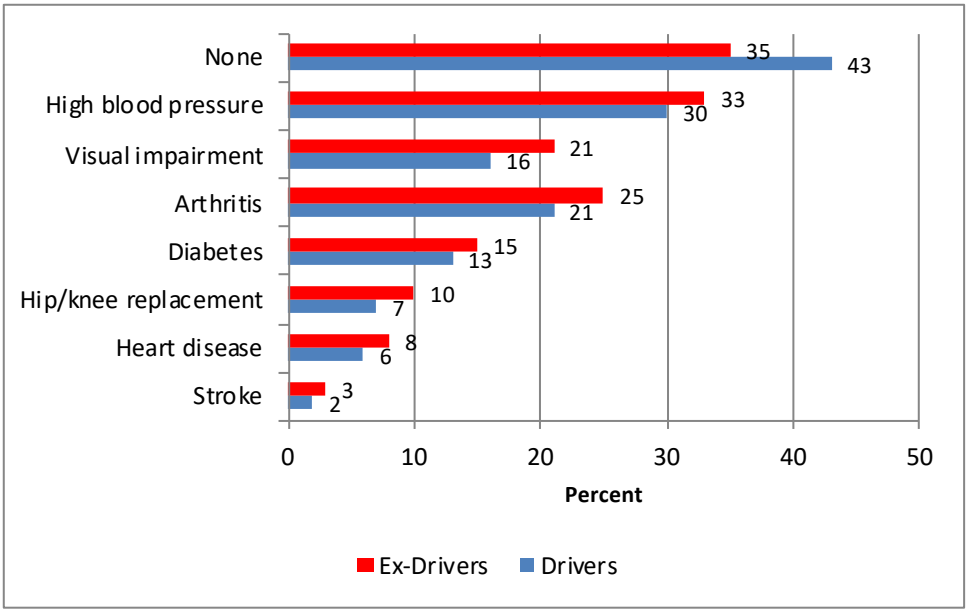



**Figure 8: Most common medical conditions reported by drivers and ex-drivers (%)**

Respondents were asked if they take any medications. Most respondents said they did (2233, 72.9%: ex-drivers 302, 76.6%; current drivers 1931, 72.4%). There was no significant difference between the groups. This differs from the 2015 study which found that ex-drivers were significantly more likely to take prescribed medications. When analysed by age group, respondents aged 70 or over were significantly more likely to be taking medications than the under 70s ($p = 0.0001$, $X^2 = 176.91$, $df = 1$), as shown in Figure 9.

Respondents were then asked if a health professional had advised them that their medications may impair their driving. Of the 2233 respondents taking medications, the vast majority said they had not been advised (2105, 94.3%) and 27 (1.2%) were not sure. Only 101 respondents (4.5%) said they had been advised. Although not all of these medications would impair fitness to drive, it is likely that more than 5% could affect driving ability.

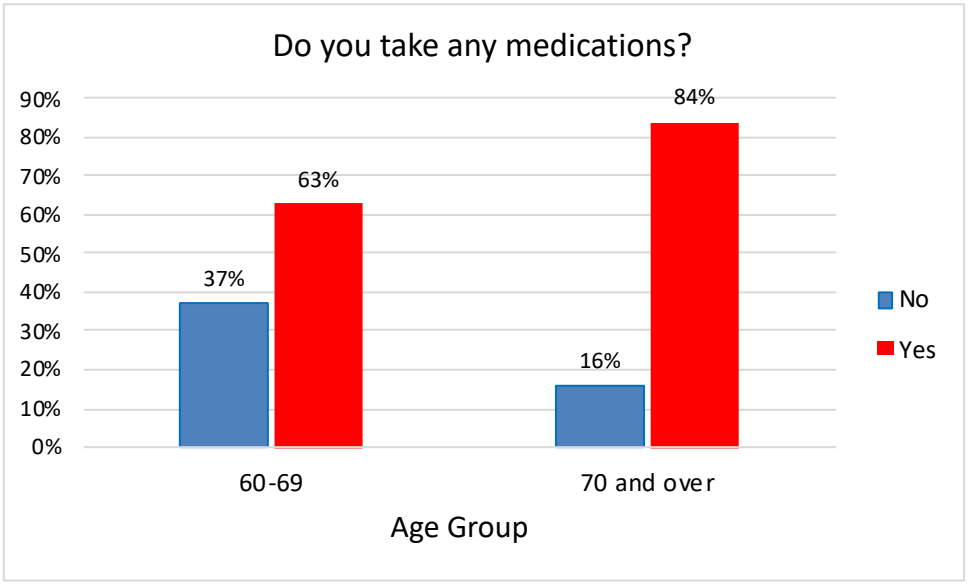



**Figure 9: Medications by age group (n=3062)**

## 3.8 Vision

All respondents were asked to state how frequently they have an eyesight test. For those aged 60 or over, or those in receipt of certain benefits, the sight test is free. Sight tests are free for everyone in Scotland. Table 14 shows the results. Overall, almost half the respondents had an eye test every year (1433, 47%), and 1301 (43%) had one every two years. When the data were analysed by age groups there was a significant difference between the groups, with older drivers having more frequent sight tests ($p = 0.0001$, $X^2 = 253.52$, $df = 8$).

Current drivers were also asked if they wear corrective lenses for driving. Overall, over half said they did (1552, 58.2%). Figure 10 shows the results. There was a significant difference between age groups, with older drivers more likely to wear corrective lenses for driving ($p = 0.0001$, $X^2 = 24.67$, $df = 2$). There were no differences between male and female drivers.

**Table 14: Frequency of eyesight tests by age group**

| Frequency of sight test | Age 60 -69 years | Age 70 – 79 years | Age 80 and over | Total |
|---|---|---|---|---|
| Every year | 549 (34.7%) | 505 (53.1%) | 379 (71.8%) | 1433 (46.8%) |
| Every 2 years | 810 (51.2%) | 377 (39.6%) | 114 (21.6%) | 1301 (42.5%) |
| Every 3 years | 98 (6.2%) | 33 (3.5%) | 23 (4.4%) | 154 (5.0%) |
| Every 4 or 5 years | 40 (2.5%) | 14 (1.5%) | 3 (0.6%) | 57 (1.9%) |
| More than 5 years | 86 (5.4%) | 22 (2.3%) | 9 (1.7%) | 117 (3.8%) |
| **Total** | **1583 (100%)** | **951 (100%)** | **528 (100%)** | **3062 (100%)** |

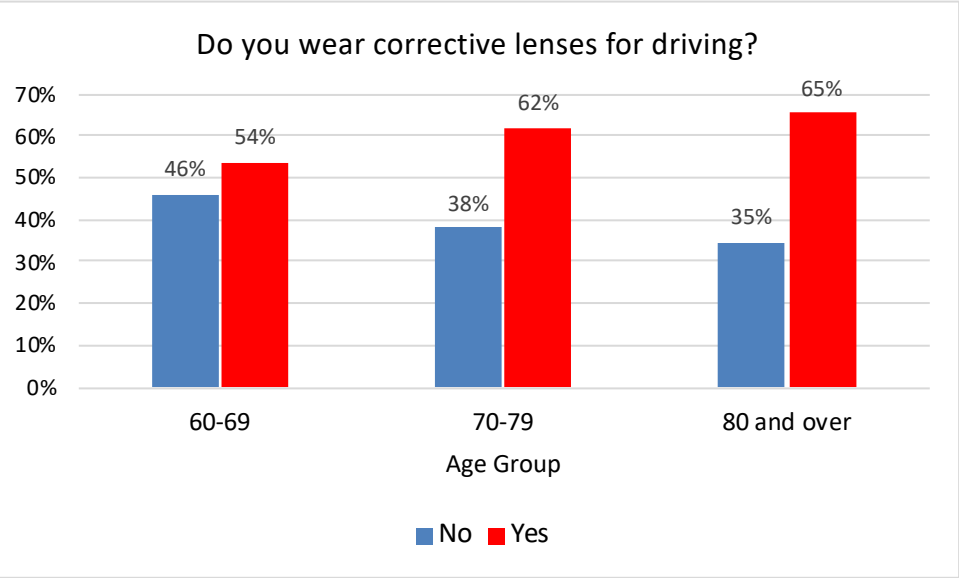



**Figure 10: Corrective lenses for driving by age group (n=2668)**

## 3.9 Covid-19 and access to healthcare

All 3062 respondents were asked if the Covid-19 pandemic had affected their access to routine healthcare. The survey was carried out in June/July 2020, about four months after the start of restrictions in the UK, so it was unlikely to have yet had a major impact on access to healthcare. Asked if they had missed a routine eye test, 532 people (17.4%) said they had. When asked if they had a visual problem but were unable to get it checked, only 127 people (4.1%) agreed. Respondents were also asked if they had a medical problem but were unable to get it checked, 396 (12.9%) agreed. There were significant differences in responses between men and women (Figure 11). Women more likely to agree that Covid had affected access to a) routine eye tests ($p = 0.0001$, $X^2 = 14.63$, $df = 1$); b) getting a visual problem checked ($p = 0.05$, $X^2 = 4.98$, $df = 1$); and c) getting a medical problem checked ($p = 0.0001$, $X^2 = 15.01$, $df = 1$).

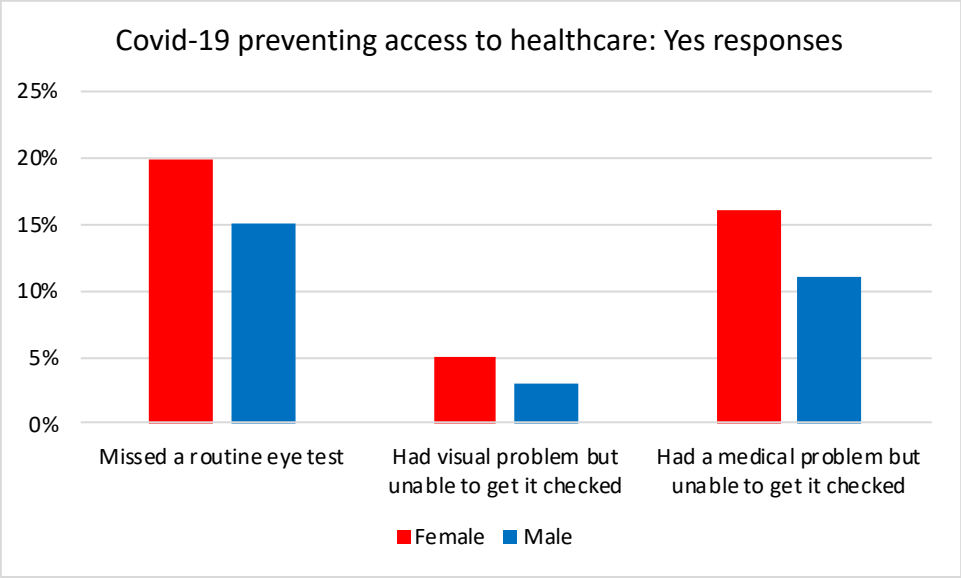



**Figure 11: Percentage of all respondents agreeing that Covid-19 prevented access to health and eyecare (n=3062)**

## 3.10 Driving history and driver training

### 3.10.1 Driving test

All respondents were asked to give the year when they passed their driving test. All 3062 people had passed their driving test and dates ranged from 1934 to 2019. The majority of respondents (79%) took their test in the 1960s or 1970s. Figure 12 shows the dates when drivers and ex-drivers passed their test. Ex-drivers had passed their test more recently than current drivers ($p = 0.0001$, $X^2 = 66.13$, $df = 7$). Figure 13 shows the dates when men and women passed their test. Women passed the test significantly more recently than men ($p = 0.0001$, $X^2 = 172.22$, $df = 7$).

Most respondents had passed their driving test between the ages of 16 and 20, the mean age was 23 years (range 15 - 67 years). Men had passed their driving test at a significantly younger mean age than women (male mean age = 20.9, female mean age = 25.1, $p = 0.0001$, $X^2 = 251.98$, $df = 8$). Almost two thirds of men (62%) men passed their test before the age of 21 compared to 37% of women. Figure 14 shows the ages when men and women passed their test. Those who were currently driving had passed their driving test at a significantly younger age than ex-drivers ($p = 0.0001$, $X^2 = 105.21$, $df = 8$). These results show similar trends to those in the 1996 and 2015 studies.

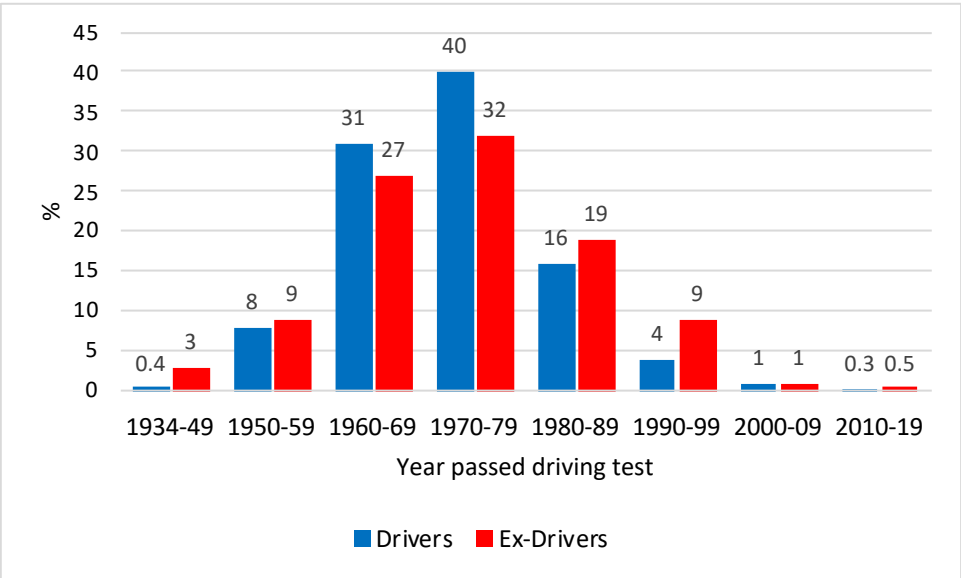



**Figure 12: Dates when drivers and ex-drivers passed their driving test**

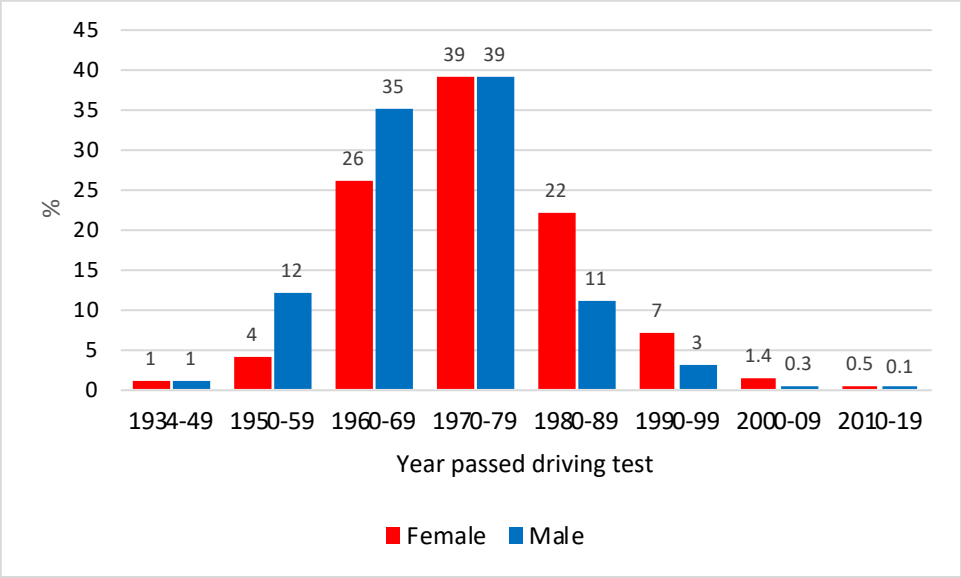



**Figure 13: Dates when men and women passed their driving test (drivers and ex-drivers)**

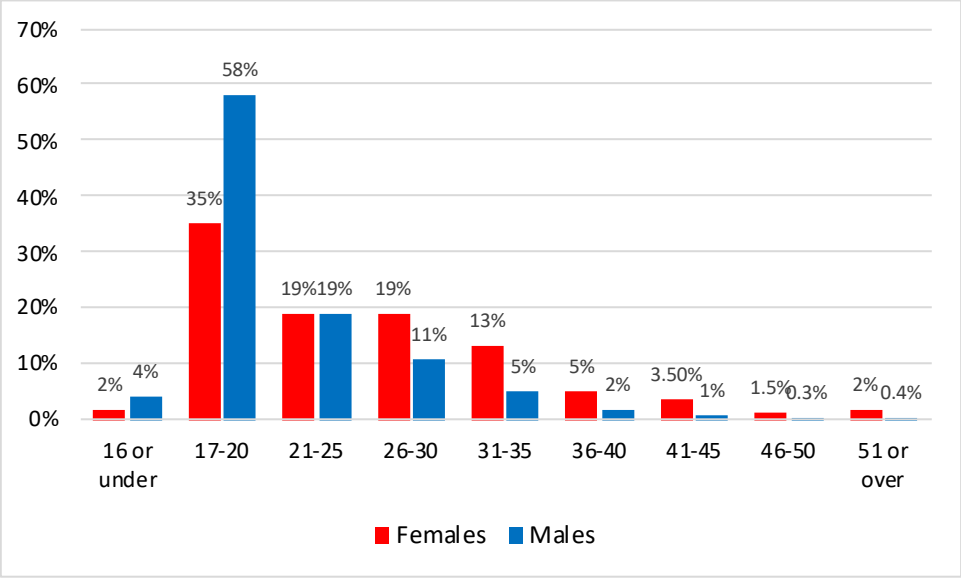



**Figure 14: Ages at which men and women passed the driving test (drivers and ex-drivers)**

## 3.10.2 Driver training

All respondents were asked if they had ever held a professional driving licence (e.g. lorry driver, bus driver, taxi driver). Most respondents had not held a professional licence (2771, 90.5%), 291 (9.5%) had. There was a significant difference between men and women, with 15% of men having held a professional licence but only 3% of women ($p = 0.0001$, $X^2 = 130.90$, $df = 1$).

Both drivers and ex-drivers were asked if they had ever received any additional driver training since passing their driving test. A total of 528 respondents said yes, of these 491 were current drivers (18.4% of current drivers) and 37 were ex-drivers (9.4% of ex-drivers). 207 respondents (6.8%) had received more than one type of additional training, so numbers do not add up to 528. The type of additional training received is shown in Table 15. Figure 15 shows the training by category, over 10% of respondents had undertaken some form of advanced professional driver training.

**Table 15: Additional driver training 2020 (n = 3062)**

| Type of training | Frequency | Percent |
|---|---|---|
| No additional training | 2534 | 82.8 |
| Advanced driver training | 186 | 6.1 |
| Defensive driving course | 86 | 2.8 |
| Driving instructor training | 36 | 1.2 |
| Driving refresher course | 65 | 2.1 |
| Driving course specifically aimed at senior drivers | 16 | 0.5 |
| IAM RoadSmart Mature Driver Review | 18 | 0.6 |
| Military driver training | 60 | 2.0 |
| Minibus driver training | 60 | 2.0 |
| Police driver training | 55 | 1.8 |
| Professional driver training HGV | 71 | 2.3 |
| Professional driver training LGV | 25 | 0.8 |
| Professional driver training PSV | 45 | 1.5 |
| Speed awareness course | 88 | 2.9 |
| Emergency vehicle driver training | 9 | 0.3 |
| Other | 65 | 2.1 |

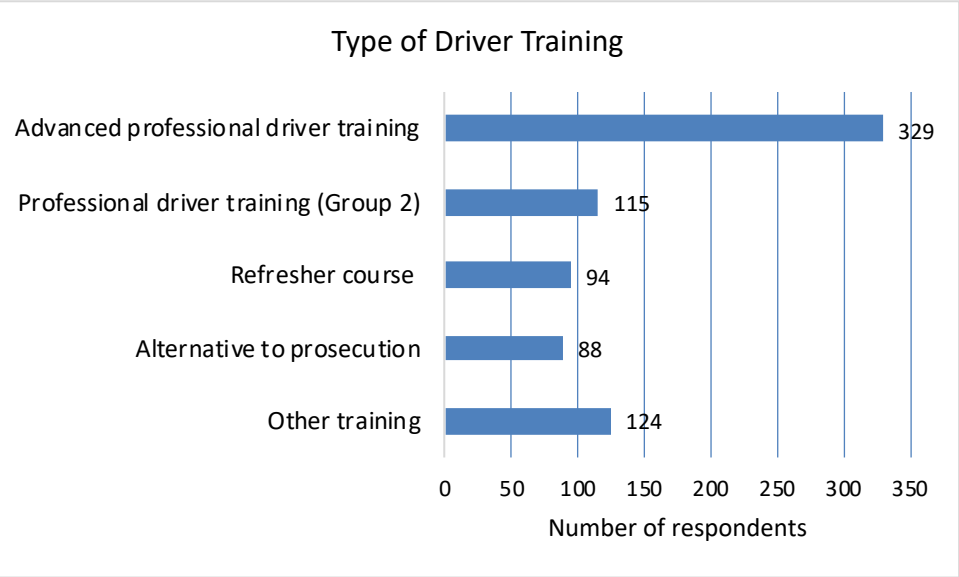



**Figure 15 Additional driver training by category**

## 3.11 Ratings of driving ability with regard to specific situations: Drivers and Ex-Drivers

Questionnaire respondents were asked to rate their level of ability as a driver (either currently for drivers, or previously for ex-drivers) with regard to a list of driving situations such as ability to read road signs early enough to act upon them, and ability to react quickly in an emergency situation. Drivers and ex-drivers rated their ability in each situation as 'very good', 'good', 'adequate', 'poor' or 'very poor'. Results are presented in Table 16.

The majority of respondents rated their ability in all situations as either 'good' or 'very good'. For most situations, fewer than 15% of respondents rated their ability as merely 'adequate'. Exceptions were the ability to see clearly in very low or very bright light conditions; ability to follow a route from memory after driving it only once; ability to judge speed of oncoming traffic; ability to divide attention between two different tasks; and ability to cope with in-car technology.

For most situations, younger respondents (aged 60-69) were significantly more likely than older respondents to rate their ability as good or very good (Table 16). Perhaps unsurprisingly, the most notable difference was in the ability of the younger group to cope with in-car technology.

**Table 16: Ratings of driving ability: all respondents (n = 3062)**

| Driving Situation | Very Good | Good | Adequate | Poor | Very Poor | Sig. dif. younger vs. older |
|---|---|---|---|---|---|---|
| Ability to read road signs early enough to give adequate time to act upon them | 1432 (46.8%) | 1226 (40% | 356 (11.6%) | 37 (1.2%) | 11 (0.4%) | p=0.05 $X^2$ = 13.5 |
| Ability to judge gaps in traffic | 1337 (43.7%) | 1315 (42.9%) | 354 (11.6%) | 48 (1.6%) | 8 (0.3%) | not sig. |
| Ability to notice vehicles, cyclists and pedestrians out of the corner of your eye | 1326 (43.3%) | 1332 (43.5%) | 355 (11.6%) | 37 ( 1.2%) | 12 (0.4%) | p=0.001 $X^2$ = 23.4 |
| Ability to see clearly in very low light conditions | 785 (25.6%) | 1351 (44.1%) | 762 (24.9%) | 140 (4.6%) | 24 (0.8%) | p=0.001 $X^2$ = 30.9 |
| Ability to see clearly in very bright light conditions | 1027 (33.5%) | 1362 (44.5%) | 554 (18.1%) | 96 (3.1%) | 23 (0.8%) | not sig. |
| Ability to make decisions quickly (e.g. when to pull out into traffic) | 1348 (44%) | 1296 (42.3%) | 369 (12.1%) | 41 (1.3%) | 8 (0.3%) | p=0.05 $X^2$ = 13.7 |
| Ability to react quickly (e.g. braking in an emergency) | 1447 (47.3%) | 1289 (42.1%) | 291 (9.5%) | 25 (0.8%) | 10 (0.3%) | not sig. |
| Ability to follow from memory a route driven/walked only once previously | 1021 (33.3%) | 1041 (34%) | 728 (23.8%) | 231 (7.5%) | 41 (1.3%) | p=0.01 $X^2$ = 16.3 |
| Ability to stay alert for long periods | 1160 (37.9%) | 1424 (46.5%) | 415 (13.6%) | 56 (1.8%) | 7 (0.2%) | p=0.05 $X^2$ = 10.8 |
| Ability to recognise when your attention has wandered from driving | 1152 (37.6%) | 1512 (49.4%) | 366 (12%) | 25 (0.8%) | 7 (0.2%) | not sig. |
| Ability to judge speed of oncoming traffic | 1149 (37.5%) | 1412 (46.1%) | 459 (15%) | 34 (1.1%) | 8 (0.3%) | not sig. |
| Ability to divide your attention between two different tasks (e.g. talking to someone while driving) | 822 (26.8%) | 1364 (44.5%) | 738 ( 24.1%) | 115 (3.8%) | 23 (0.8%) | not sig. |
| Ability to cope with in-car technology in modern vehicles | 757 (24.7%) | 1061 (34.7%) | 946 (30.9%) | 234 (7.6%) | 64 (2.1%) | p=0.001 $X^2$ = 49.3 |

Comparisons were then made between the numbers of current and ex-drivers rating themselves as either 'good or very good', 'adequate', or 'poor or very poor'. Statistically highly significant differences were observed between the current and ex-drivers on ratings for all of the driving situations (p = 0001). Ex-drivers were less likely to rate themselves as good or very good and more likely to rate themselves as adequate or poor. Figures 16a to 16m illustrate the percentage differences. For most scenarios ex-drivers in the current survey rated their abilities lower than those in the 2015 survey. Exceptions were: 'ability to stay alert for long periods'; 'ability to judge speed of oncoming traffic'; and 'ability to divide your attention between two different tasks'. However, the 2015 study had was a smaller cohort of ex-drivers (217) compared to the 394 in the current study which is likely to be more representative of the wider population of ex-drivers.

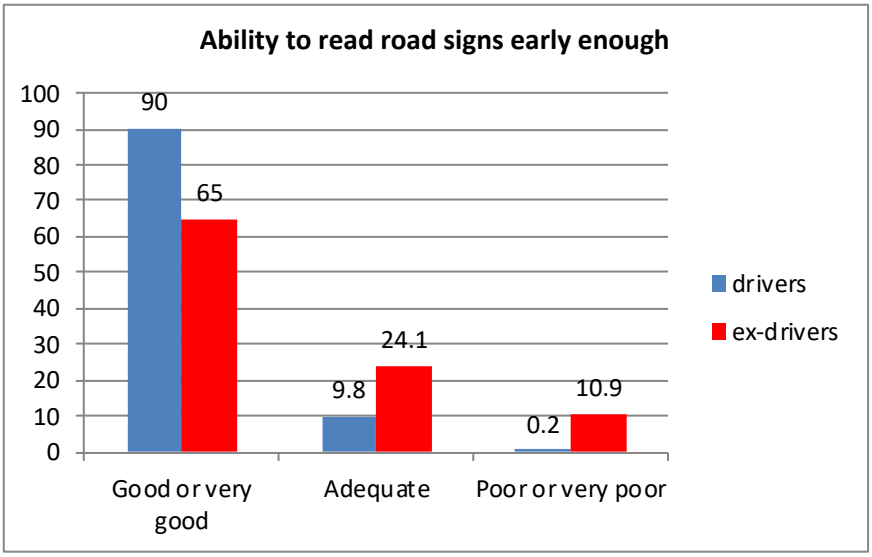



**Figure 16a: Ability to read road signs early enough (%)**

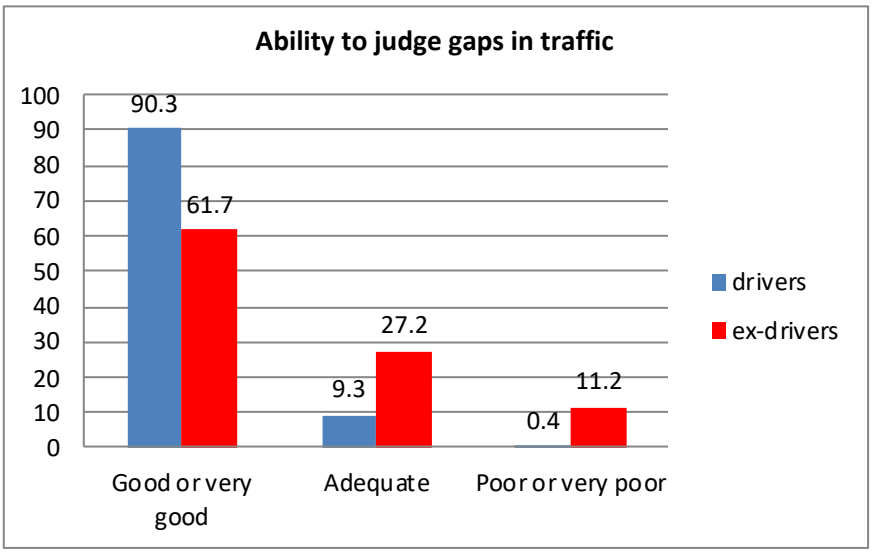



**Figure 16b: Ability to judge gaps in traffic (%)**

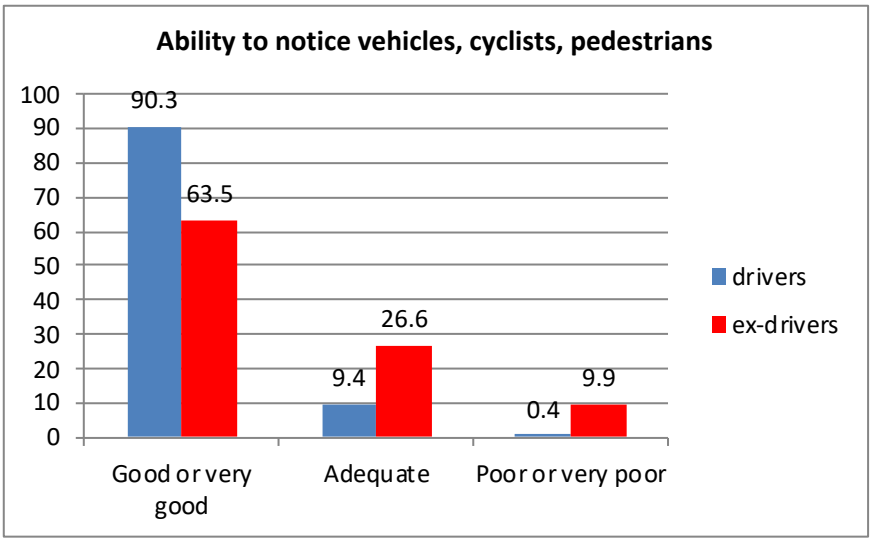



**Figure 16c: Ability to notice vehicles, cyclists, pedestrians out of the corner of your eye (%)**

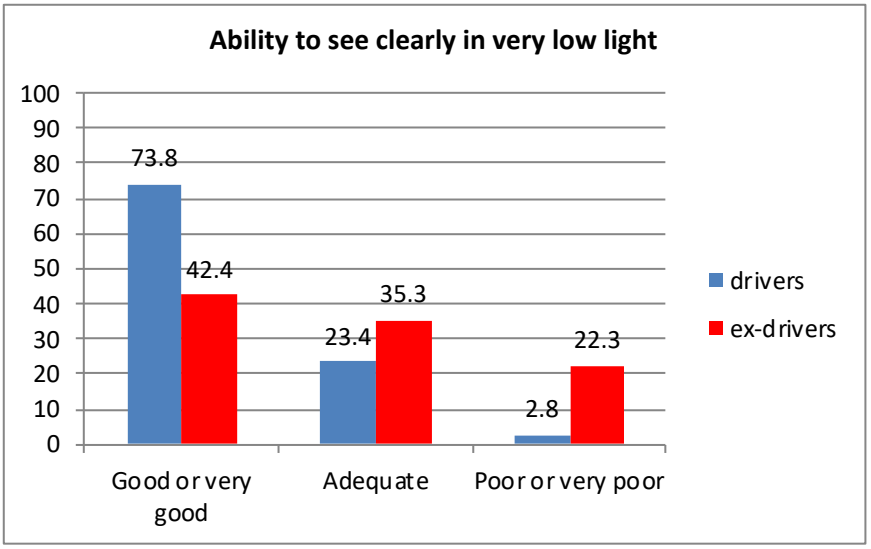



**Figure 16d: Ability to see clearly in very low light (%)**

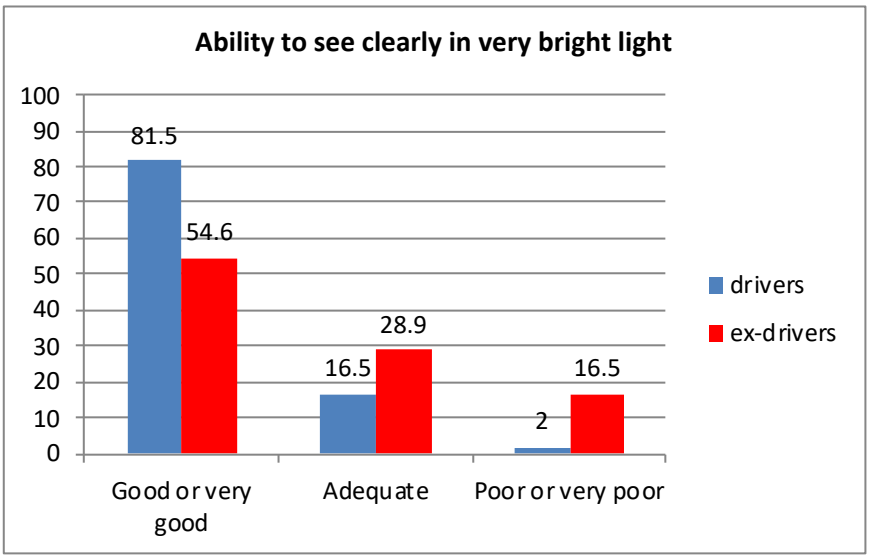



**Figure 16e: Ability to see clearly in very bright light (%)**

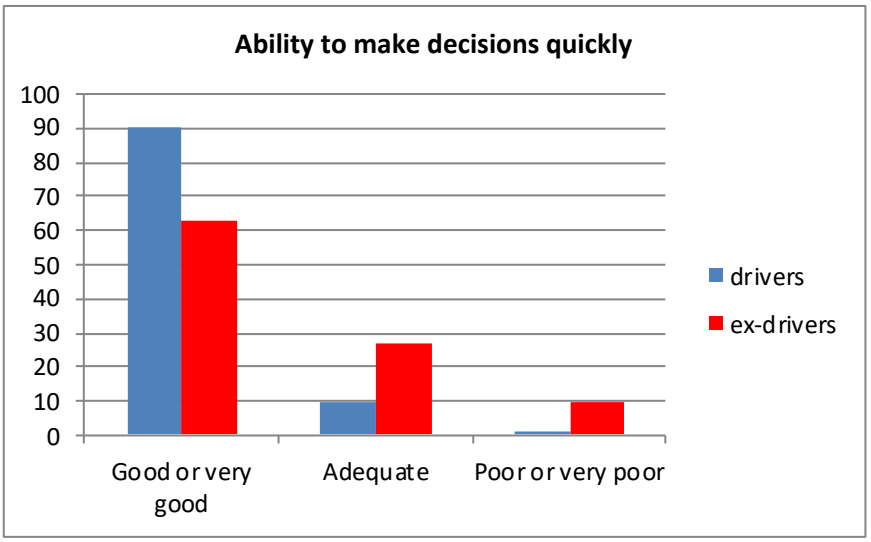



**Figure 16f: Ability to make decisions quickly (%)**

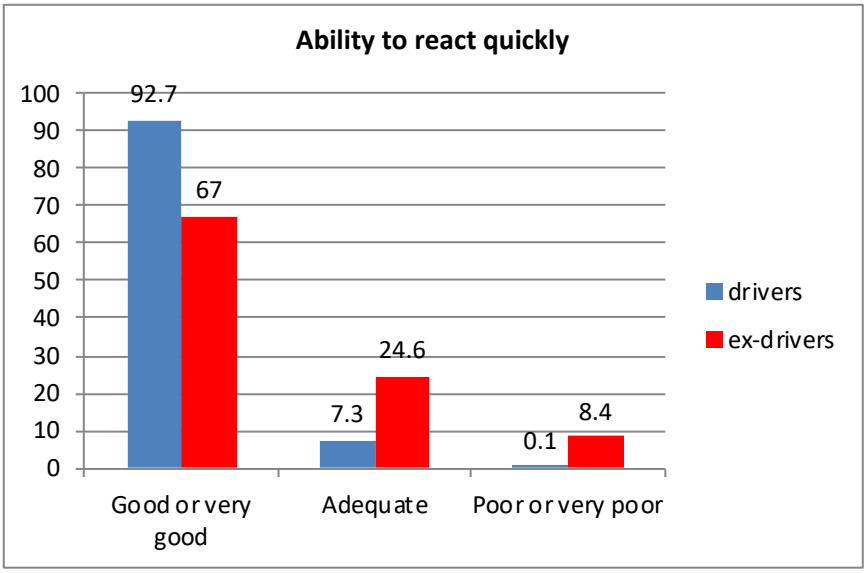



**Figure 16g: Ability to react quickly (%)**

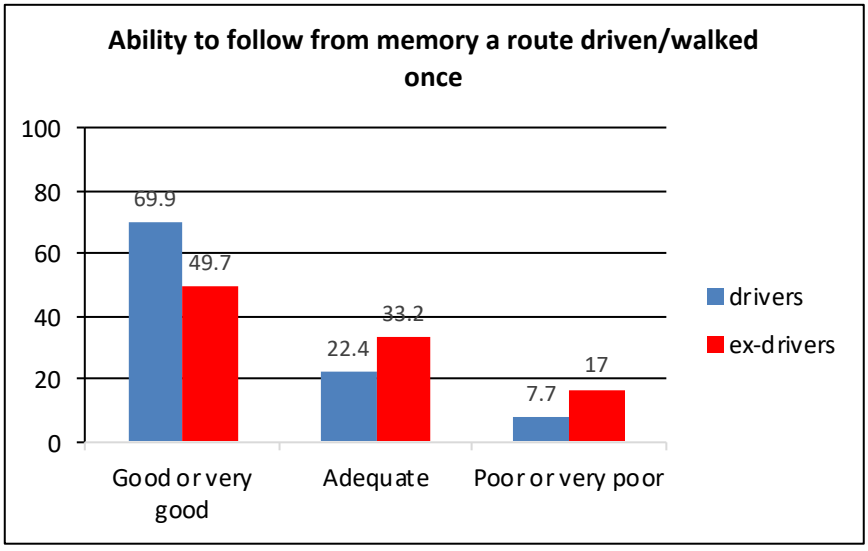



**Figure 16h: Ability to follow from memory a route driven/walked only once previously (%)**

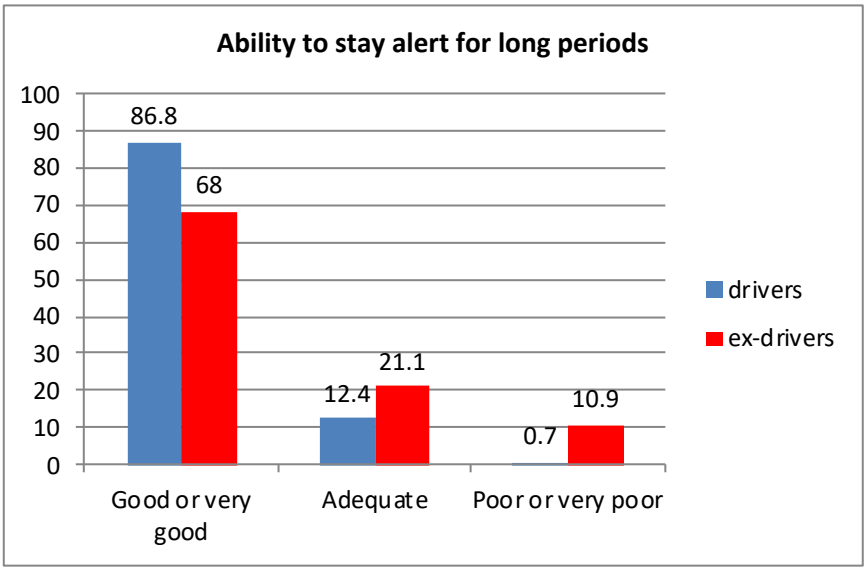



**Figure 16i: Ability to stay alert for long periods (%)**

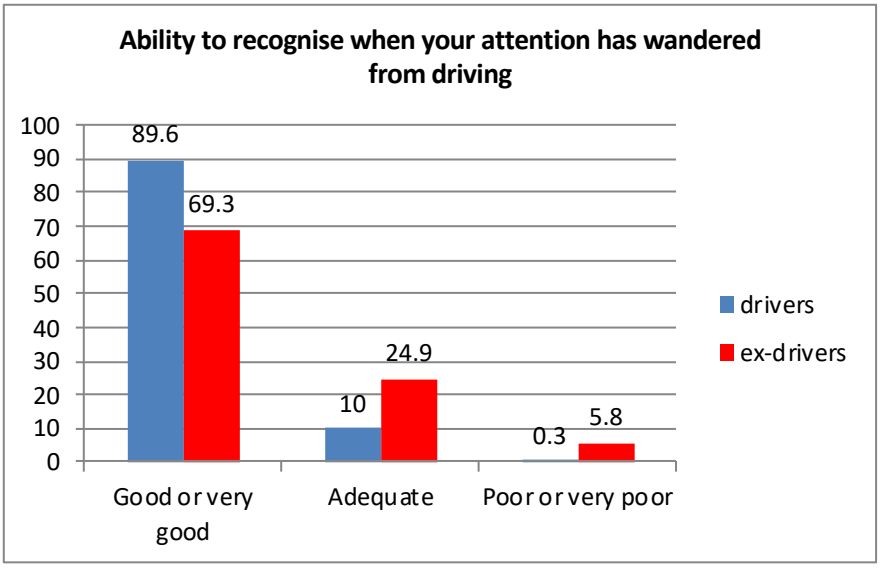



**Figure 16j: Ability to recognise when your attention has wandered from driving (%)**

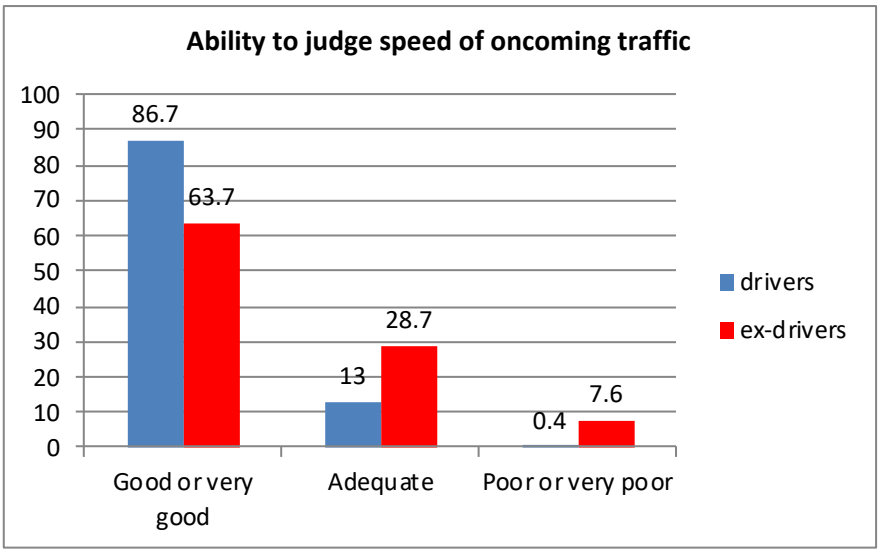



**Figure 16k: Ability to judge the speed of oncoming traffic (%)**

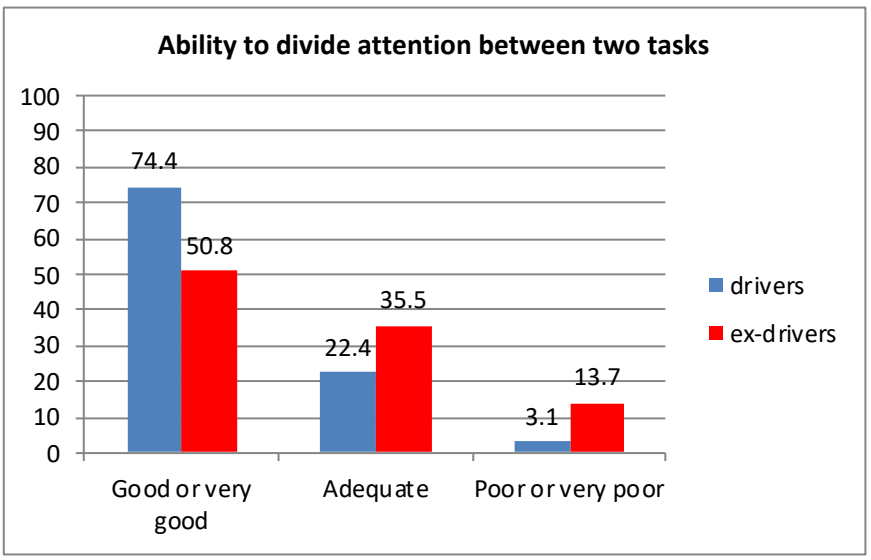



**Figure 16l: Ability to divide attention between two tasks (%)**

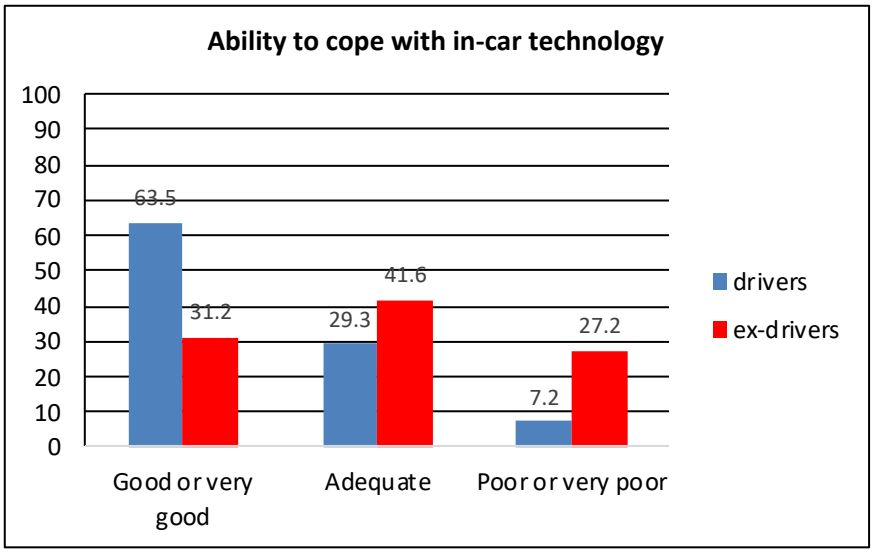



**Figure 16m: Ability to cope with in-car technology in modern vehicles (%)**

## 3.12 Reasons why ex-drivers gave up driving

The 394 ex-drivers (261 women and 133 men) were asked at what age they gave up driving. Ages ranged from 19 to 93. Some had given up driving soon after passing their driving test and had not driven since. Eleven respondents had given up driving before their 30s. The mean age of giving up was 62.6 years (SD = 14.73), the median age was 65 years.

Asked if they had previously considered giving up driving before they actually did, 92 respondents (23.4% of all ex-drivers) said they had (35 men and 57 women). Asked how many times these ex-drivers had considered giving up, 34 (8.6%) had thought about it once, 29 (7.4%) thought about it twice, and a further 29 (7.4%) had thought about it multiple times, with 10 of these saying they had thought about giving up driving 10 or more times.

Ex-drivers were asked if they felt they had given up driving at the right time, too early, or if they felt they had left it later than they should to stop driving. Unlike in the 2015 survey, there was no significant difference between men and women. Figure 17 shows the results.

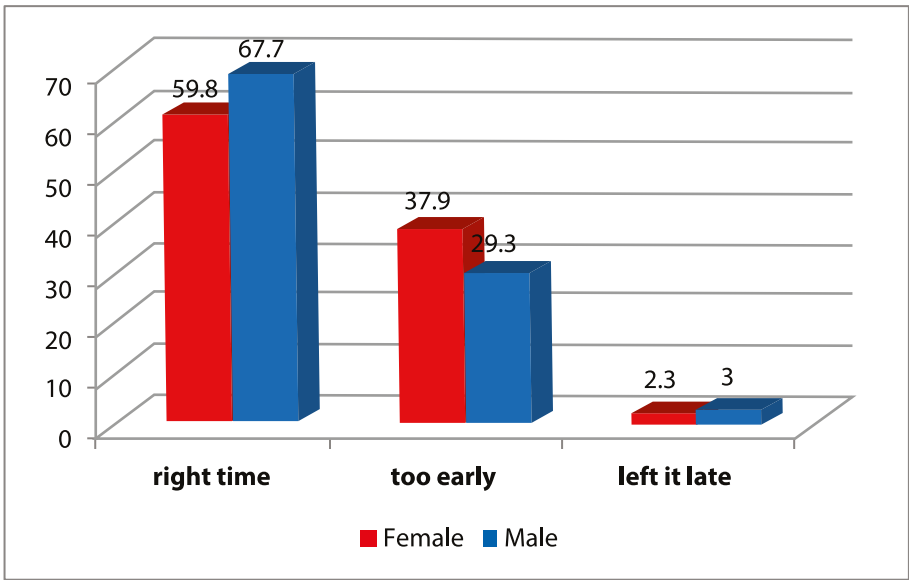



**Figure 17: Ex-drivers, did you give up driving at the right time? (n = 394)**

Ex-drivers were asked what was the main reason why they gave up driving. Many reasons were given, the main ones were giving up driving because of health issues, cost or visual problems. Figure 18 presents the most frequently cited reasons representing 96% of respondents. A few respondents gave other reasons such as a change of family vehicle (4) Covid lockdown (3); failing a test; environmental reasons (2); or poor parking where they lived (2). There were differences in the responses to the 2015 survey, in that in 2020 more ex-drivers cited eyesight as the main reason for giving up and fewer ex-drivers said that lack of confidence was the main reason. The 2015 results are presented in Figure 19 below.

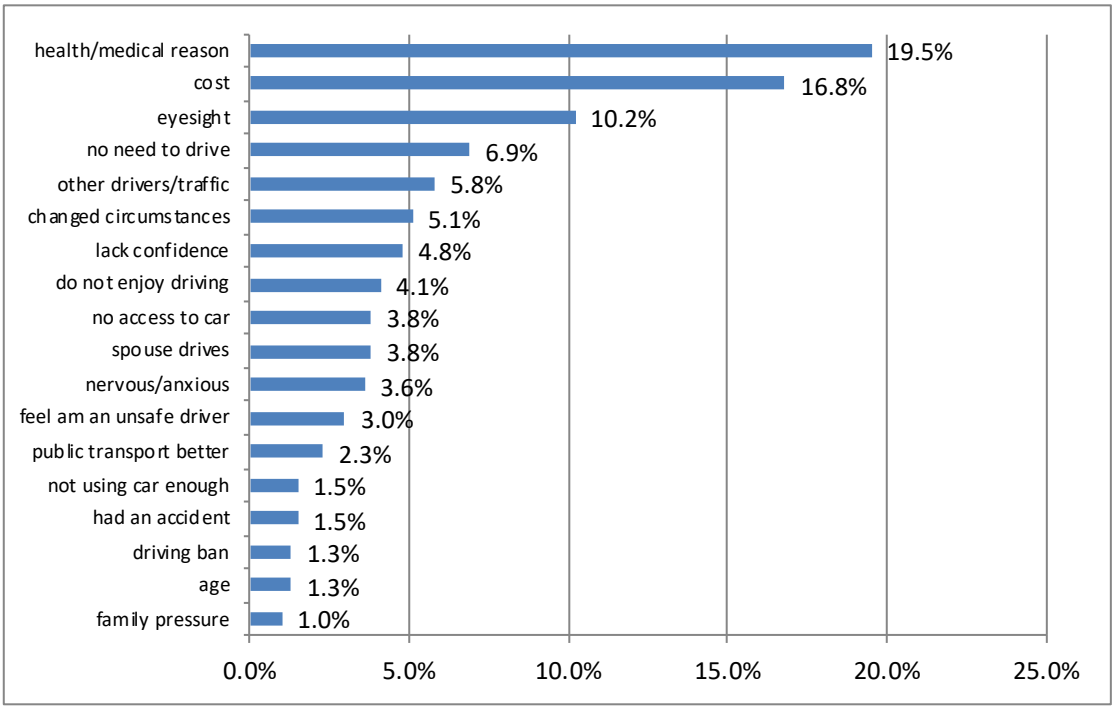



**Figure 18: 2020 survey: Reasons why Ex-Drivers gave up driving (percentages) (n = 394)**

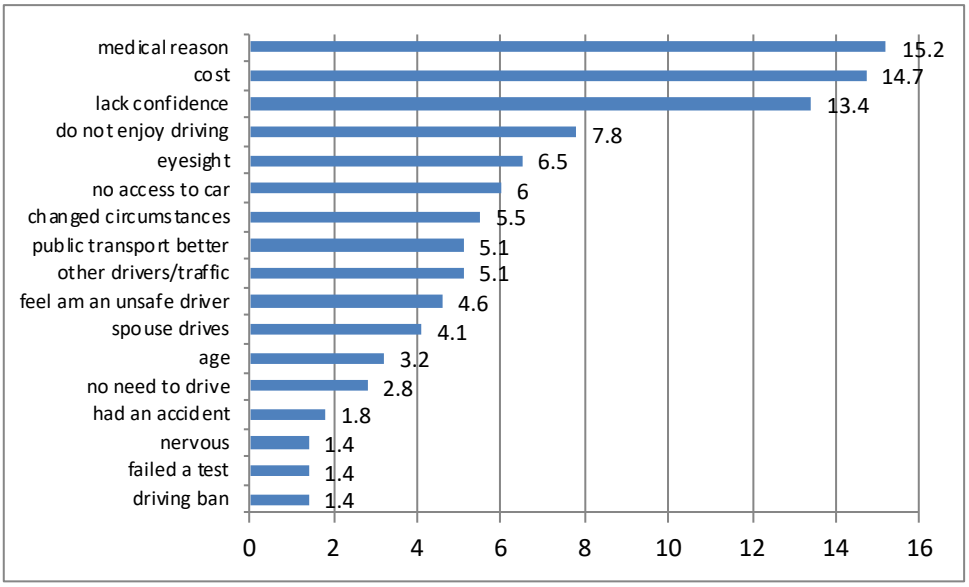



**Figure 19: 2015 survey: Reasons why Ex-Drivers gave up driving (percentages) (n = 217)**

There were significant differences between men and women for several reasons. Women were more likely to cite 'do not enjoy driving'; 'spouse drives'; 'loss of confidence'; 'nervous or anxious'; and 'change of family vehicle' ($p = 0.01$). 'Spouse drives' refers to both the comment that 'my husband does all the driving' through to comments that the husband criticised the respondent's driving to the extent that they gave up driving. Only women gave the reason 'change of family vehicle' referring to a new vehicle in a one-vehicle household which was either bigger, more technically challenging, or in one case swapping the family car for a large motorhome which the wife felt was too daunting to drive. Men were more likely to cite 'cost'; and 'no need to drive' as reasons for giving up driving ($p = 0.01$). Figure 20 shows the comparisons between men and women.

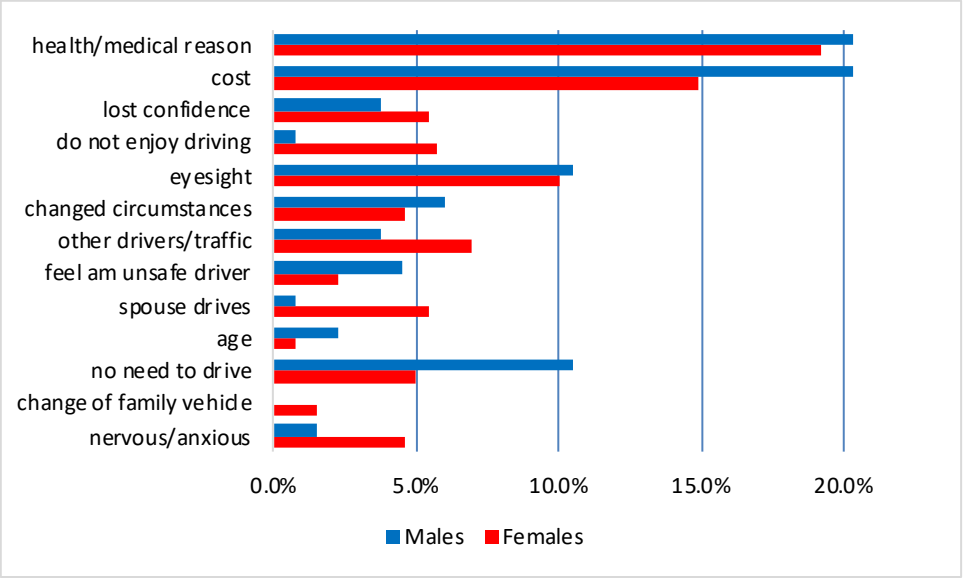



**Figure 20: Reasons why Ex-Drivers gave up driving: male/female comparisons for main reasons (n = 394)**

Ex-drivers were asked about their decision to stop driving, and if this was their own decision or if they felt they had been influenced or pressured into stopping driving. Table 17 shows the results. Very few ex-drivers said they had felt under pressure to give up driving from others (family, friends or health professionals). These results are similar to those found in the 2015 survey. When the results were examined by gender, the only statement where there was a significant difference between men and women was 'felt under pressure from others to give up driving' where 81% of women disagreed compared with 61% of men ($p = 0.0001$, $X^2 = 20.86$, $df = 4$).

**Table 17: Ex-drivers levels of agreement with statements about decisions to give up driving**

| Statement | Strongly Agree | Slightly Agree | Neutral | Slightly Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| Circumstances outside your control made you give up | 81 (20.6%) | 64 (16.2%) | 55 (14%) | 53 (13.5%) | 141 (35.8%) |
| A gradual reduction in driving until eventually gave up | 61 (15.5%) | 114 (28.9%) | 86 (21.8%) | 39 (9.9%) | 94 (23.9%) |
| Deciding not to start again after extended period of not driving | 83 (21.1%) | 88 (22.3%) | 78 (19.8% | 39 (9.9%) | 106 (26.9%) |
| Felt under pressure from others to give up driving | 18 (4.6%) | 31 (7.9%) | 53 (13.5%) | 61 (15.5%) | 231 (58.6%) |

## 3.13 Current drivers

There were 2688 respondents who were currently driving. All drivers were grouped by age into those aged less than 70 and those aged 70 and over. Comparisons were made between groups.

### 3.13.1 Miles driven per annum by current drivers

Current drivers were asked to specify approximately how many miles they drove last year. 48 respondents reported extremely high mileage, well above average, some were HGV or PSV drivers, but some other cases may have been errors, perhaps an accidental extra '0'. Therefore, as in the 2015 study, we excluded from the analysis annual mileage rates in excess of 22,000 as these high mileages would skew the results. Based on 2589 current drivers the mean annual mileage was 5786.4 miles (range 0 – 22,000; SD = 3897.3). Two current drivers said they did not drive at all last year.

When high mileage drivers were excluded the average mileages were 5129.6 for those aged 70 and over ($n = 1234$, range 0 – 20,000, SD = 3494.51) and 6384.5 for those aged under 70 ($n = 1355$, range 0 – 22,000, SD = 4142.52). The under 70s had significantly higher average mileage ($p = 0.0001$, $t = 8.36$).

Current drivers who were fully retired from work (n = 1869) had an average mileage of 5255.6 (range 0 – 20,000, SD = 3545.22). Current drivers who had not fully retired (n = 720) had a significantly higher average mileage rate 7164.1 (range 0 – 22,000, SD = 4402.89), (p = 0.0001, t = -10.4).

When examined by gender, men had a significantly higher mean annual mileage rate than women (p = 0.0001, t = 12.86): men = 6607.25 miles/annum, (n = 1470, range 0 – 22,000, SD = 3967.19); women = 4708.01 miles/annum, (n = 1119, range 0 – 22,000, SD = 3525.74).

Mean annual mileage rates were compared for residents of cities and towns (urban) (983) and rural residents (777), with suburban residents excluded. Rural residents had a significantly higher mean mileage rate (6344.6) than urban residents (5674.3) (p = 0.03, t = -3.53).

### 3.13.2 Main driver in household

Overall, 78% of current drivers (2075) said they were the main driver in their household. There was a significant difference between men and women (p = 0.0001, $X^2$ = 448.26, df = 1). Most men said they were the main driver (1402, 92.7%), and over half the women said they were the main driver in their household (673, 58.3%).

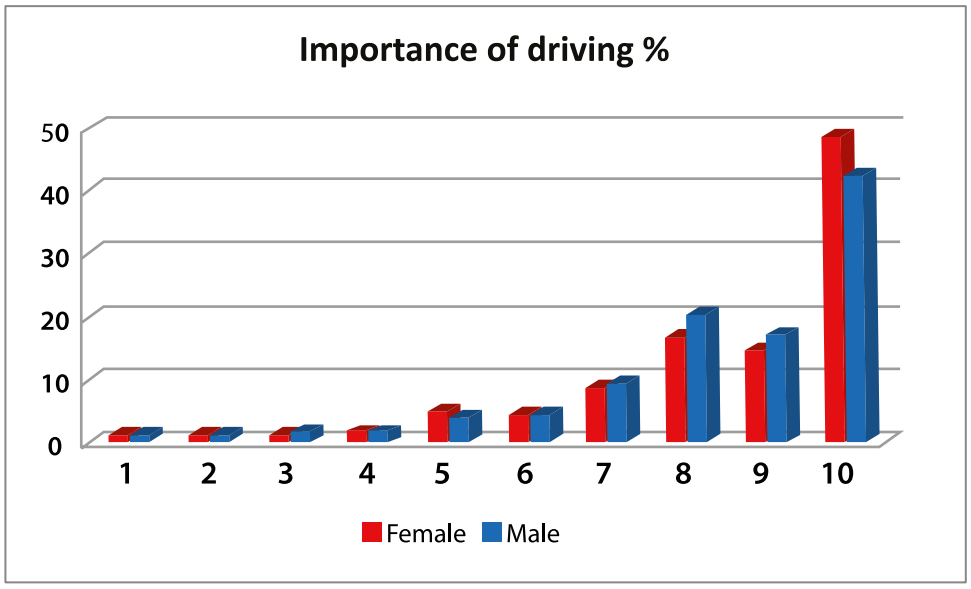
### 3.13.3 Importance of driving

Current drivers were asked to rate how important driving is to them, on a scale of one to ten where 1 is not at all important and 10 is extremely important. Overall, 79% of respondents rated the importance of driving between 8 and 10, of these the majority rated it as 10. The mean rating was 8.6 (SD = 1.73).

There was a small but significant difference between men and women, with women more likely to rate driving as extremely important (p = 0.05, $X^2$ = 17.30, df = 9). Figure 21 shows the results.

When mean ratings were examined by age groups, there was a significant difference (t = -2.19, p = 0.03) between drivers aged 60-69 (mean = 8.5) and those aged 70 and over (mean = 8.7). There was also a significant difference in ratings (t = -7.2, p = 0.0001) between respondents living in urban (mean = 8.4) or rural areas (mean = 8.97).

**Figure 21: Current drivers ratings of the importance of driving (n = 2668)**




Current drivers were asked to think about the time before the Covid-19 pandemic: "normally, if you did not drive a car how easy would it be to get around?". Four hundred and sixty-seven (17.5%) said it would be very difficult; 737 (27.6%) said it would be difficult; 607 (22.8%) said it would be neither difficult nor easy; 656 (24.6%) said it would be quite easy; 201 (7.5%) said it would be very easy.

### 3.13.4 Driving ability

Current drivers were asked to rate their general ability as a driver on a scale of one to ten, where 1 is poor and 10 is excellent. Overall, 79% of respondents rated their driving ability between 8 and 10 (good to excellent). The mean rating was 8.24 (SD = 1.21).

There was a significant difference between men and women, with men more likely to rate driving ability as very good or excellent ($p = 0.0001$, $X^2 = 119.13$, $df = 9$). Figure 22 shows the results. When mean ratings were examined by gender, there was a significant difference ($t = 10.78$, $p = 0.0001$) between men (mean = 8.45) and women (mean = 7.95).

When examined by age groups, there was no significant difference between the ratings of drivers aged under 70 and those aged 70 and over. These findings are very similar to those of the 2015 study.

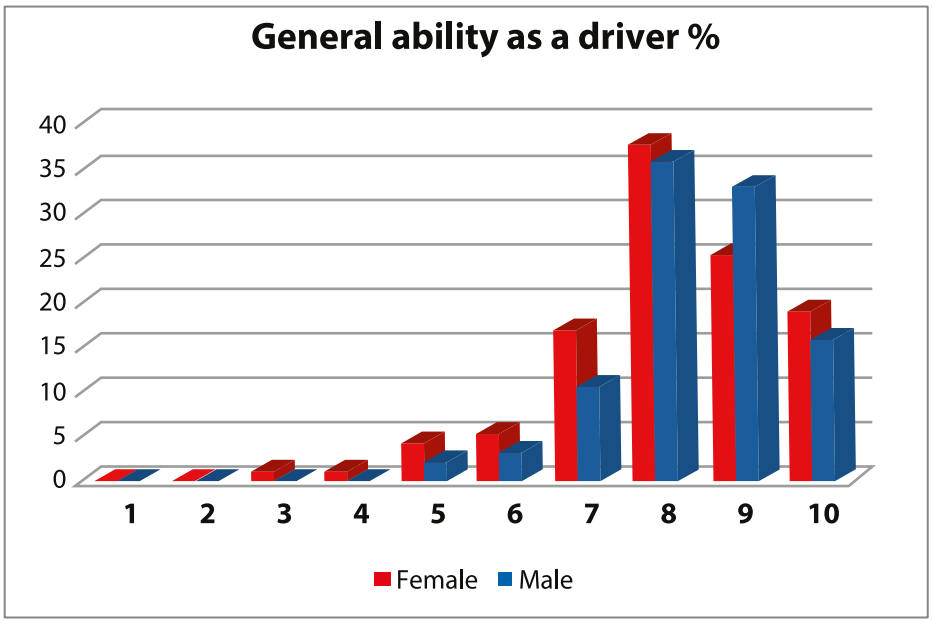



**Figure 22: Current drivers ratings of their general ability as a driver (n = 2668)**

### 3.13.5 Driving Confidence

Current drivers were asked to rate their general confidence as a driver on a scale of one to ten, where 1 is not at all confident and 10 is extremely confident. Overall, 84.5% of respondents rated their confidence as a driver between 8 and 10 (high to extremely confident). The mean rating was 8.67 (SD = 1.43). These findings are very similar to those of the 2015 study.

There was a significant difference between men and women, with men likely to rate their confidence more highly ($p = 0.0001$, $X^2 = 149.76$, $df = 9$). Figure 23 shows the results. When mean ratings were examined by gender, there was a significant difference ($t = 12.26$, $p = 0.0001$) between men (mean = 8.96) and women (mean = 8.29).

When mean ratings were examined by age groups, there was a significant difference ($t = -2.35$, $p = 0.02$) between drivers aged 60-69 (mean = 8.61) and those aged 70 and over (mean = 8.74). There were no differences between urban and rural residents.

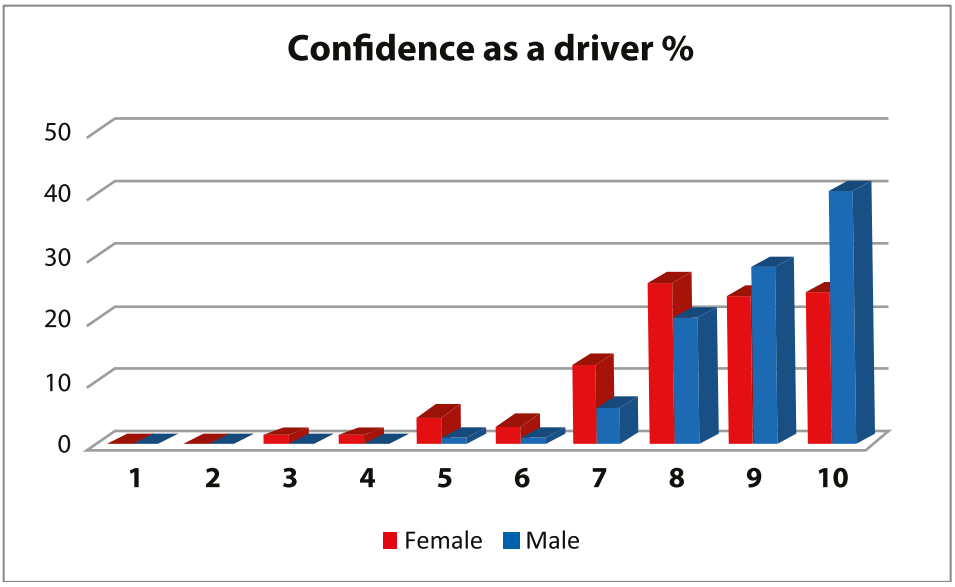



**Figure 23: Current drivers ratings of general confidence as a driver (n = 2668)**

## 3.13.6 Main reasons for driving

For the 2015 survey, a list of main reasons for driving was created from the literature on older drivers. The same list was used in the current survey. Current drivers were asked to tick all reasons that applied to them. Responses were analysed by age group and comparisons made between drivers aged 60 to 69 and drivers aged 70 and over. Table 18 presents the results. There were statistically significant differences between older and younger drivers for all reasons apart from 'giving lifts to others'. Unsurprisingly, the most notable differences between age groups were that older drivers were less likely to drive for work related purposes, and fewer younger drivers said a main reason for driving was shopping, meetings or services. The results were similar to those of the 2015 survey.

Respondents were also invited to state other reasons, but these were mainly already covered by the existing categories. Exceptions were driving to 'charge the battery' or 'collecting medications'.

**Table 18: Main reasons for driving: Older and younger current drivers (n = 2668)**

| Activity | Age 60-69 n = 1412 | Age 70 and over n = 1256 | All Ages n = 2668 | Significant difference between age groups |
|---|---|---|---|---|
| Shopping or errands | 1210 (85.7%) | 1145 (91.2%) | 2355 (88.3%) | p= 0.001 ($X^2$ = 19.19) |
| Visiting friends or relatives | 1098 (77.8%) | 1019 (81.1%) | 2117 (79.3%) | p= 0.05 ($X^2$ = 4.60) |
| Going to meetings or services | 273 (19.3%) | 324 (25.8%) | 597 (22.4%) | p= 0.001 ($X^2$ = 16.35) |
| Leisure activities | 1021 (72.3%) | 966 (76.9%) | 1987 (74.5%) | p= 0.01 ($X^2$ = 7.41) |
| Going to appointments | 824 (58.4%) | 810 (64.5%) | 1634 (61.2%) | p= 0.001 ($X^2$ = 10.54) |
| To/from workplace (paid or voluntary) | 491 (34.8%) | 170 (13.5%) | 661 (24.8%) | p= 0.001 ($X^2$ = 160.88) |
| Giving lifts to others | 357 (25.3%) | 307 (24.4%) | 664 (24.9%) | Not significant |

The reasons for driving were also analysed by gender. There were significant differences between men and women for five of the seven items. Women were more likely to drive for shopping (p = 0.01); visiting friends or relatives (p = 0.001); going to appointments (0.001); and giving lifts to others (p = 0.002). Men were more likely to drive for leisure activities (p = 0.001).

## 3.13.7 Avoidance of difficult driving situations

Current drivers were asked if they had avoided certain driving situations during the previous year (pre-Covid), and if so, how frequently: never, rarely, sometimes, often, or always. The purpose of this question was to see if drivers regulate their driving in difficult driving situations. The list of driving situations was created from the literature on older drivers and used in the 2015 survey. For the current survey one extra question was added asking if drivers avoided roadworks. Table 19 presents the results.

**Table 19: Avoidance of difficult driving situations in the previous year (n = 2668)**

| Driving Situation | Never | Rarely | Sometimes | Often | Always |
|---|---|---|---|---|---|
| Driving at night | 1237 (46.4%) | 544 (20.4%) | 521 (19.5%) | 268 (10%) | 98 (3.7%) |
| Driving at peak times | 1108 (41.5%) | 530 (19.9%) | 608 (22.8%) | 344 (12.9%) | 78 (2.9%) |
| Driving in bad weather | 1090 (40.9%) | 661 (24.8%) | 663 (24.9%) | 206 (7.7%) | 48 (1.8%) |
| Driving on busy roads | 1436 (53.8%) | 503 (18.9%) | 466 (17.5%) | 221 (8.3%) | 42 (1.6%) |
| Driving on unfamiliar roads | 1416 (53.1%) | 581 (21.8%) | 478 (17.9%) | 142 (5.3%) | 51 (1.9) |
| Driving on motorways | 1604 (60.1%) | 419 (15.7%) | 332 (12.4%) | 190 (7.1%) | 123 (4.6%) |
| Making right turns | 2063 (77.3%) | 231 (8.7%) | 152 (5.7%) | 175 (6.6%) | 47 (1.8%) |
| Parallel parking | 1448 (54.3%) | 433 (16.2%) | 394 (14.8%) | 206 (7.7%) | 187 (7%) |
| Driving when alone | 1928 (72.3%) | 299 (11.2%) | 177 (6.6%) | 210 (7.9%) | 54 (2%) |
| Driving at night in the rain | 1192 (44.7%) | 574 (21.5%) | 516 (19.3%) | 243 (9.1%) | 143 (5.4%) |
| Driving when feeling tired | 969 (36.3%) | 579 (21.7%) | 486 (18.2%) | 208 (7.8%) | 426 (16%) |
| Driving long distances | 1294 (48.5%) | 503 (18.9%) | 500 (18.7%) | 224 (8.4%) | 147 (5.5%) |
| Roadworks | 1383 (51.8%) | 522 (19.6%) | 594 (22.3%) | 146 (5.5%) | 23 (0.9%) |

## Driving avoidance by age group

The responses were further analysed by age group, and comparisons made between drivers aged 60 to 69 and drivers aged 70 and over. For these comparisons a three-point scale was used 'rarely/never', 'sometimes' and 'often'. There were small but statistically significant differences in responses between groups for only four driving situations. For three: driving at night; driving at night in the rain; and driving long distances, older drivers were more likely to avoid these situations. These findings are similar to those of the 2015 survey. However, somewhat surprisingly, older drivers were less likely than younger drivers to avoid driving when feeling tired. Figures 24a to 24d illustrate these differences.

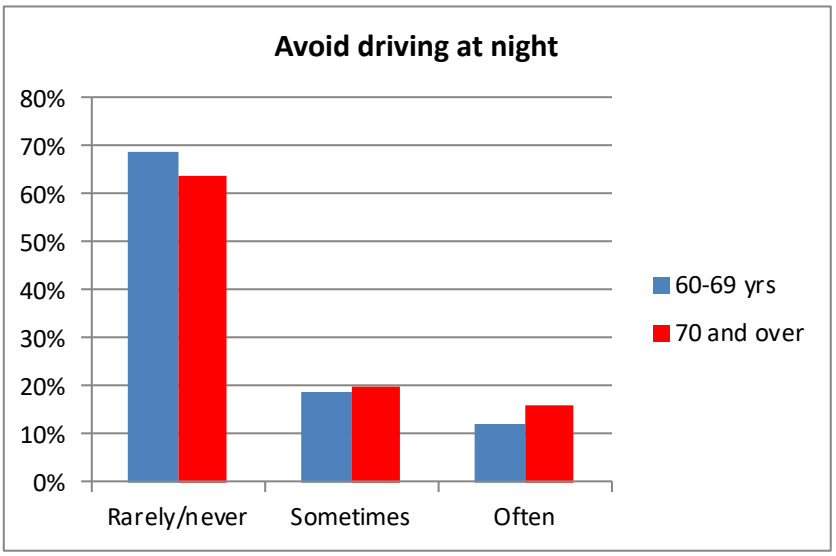



**Figure 24a: Avoid driving at night (p = 0.01)**

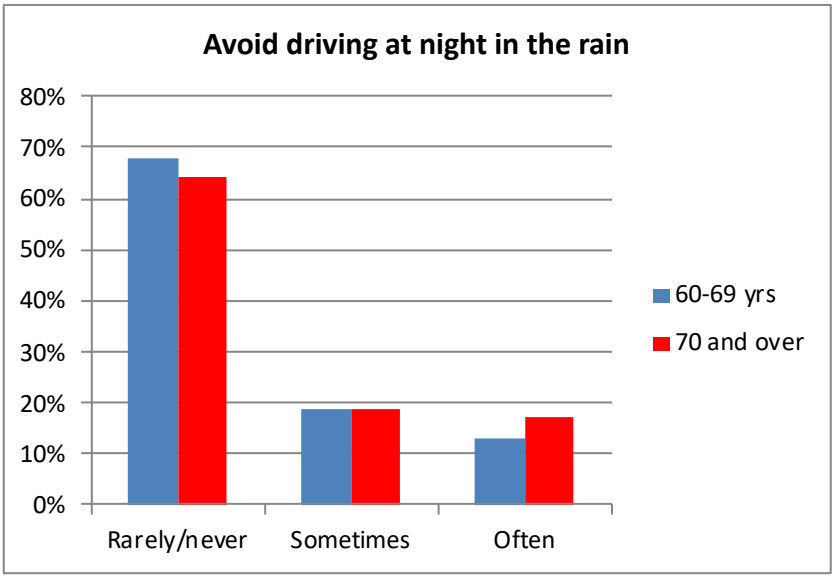



**Figure 24b: Avoid driving at night in the rain (p = 0.02)**

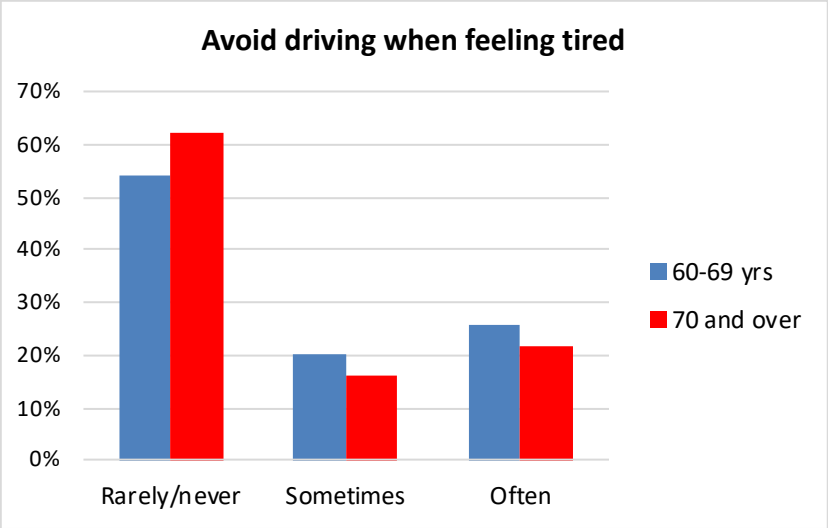



Figure 24c: Avoid driving when feeling tired (p = 0.001)

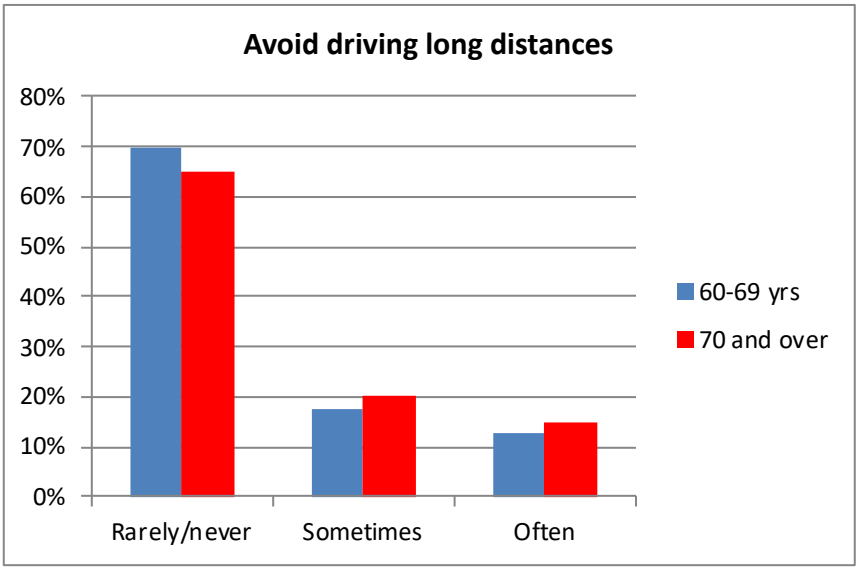



Figure 24d: Avoid driving long distances (p = 0.01)

## Driving avoidance and gender

The responses of men and women were compared, and there were highly significant differences in driving avoidance for all difficult situations except for 'driving alone' and 'roadworks'. Figure 25 presents the results of responses of 'often or always' avoiding the situation. Women were significantly more likely (p = 0.001) to say they often or always avoided all situations except for 'making right turns' which were most frequently avoided by men (p = 0.05).

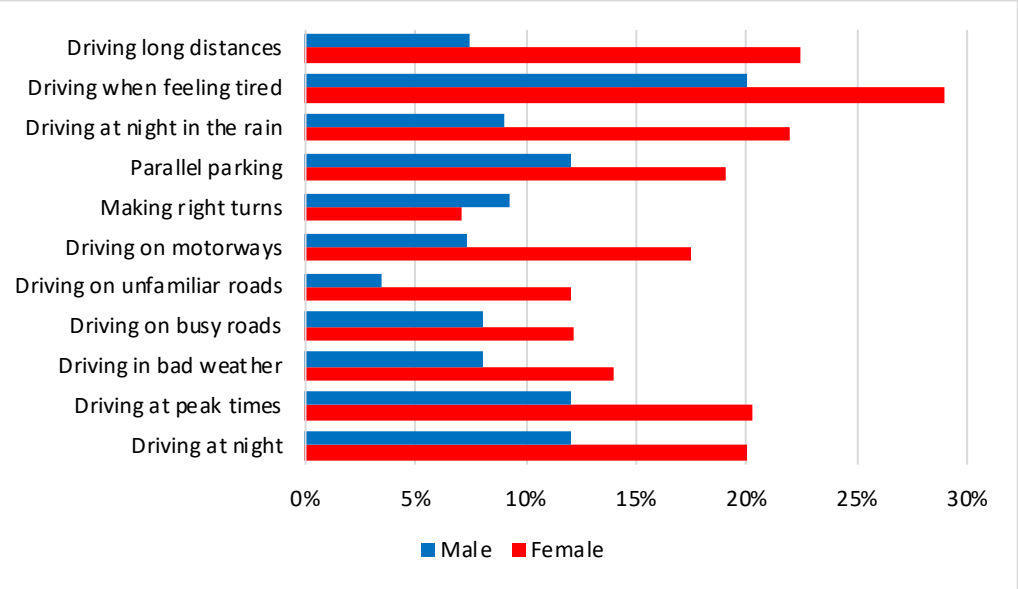



**Figure 25: Often or always avoiding difficult driving situations: Comparison of males and females (n=2668)**

## 3.13.8 Driver behaviour: errors and lapses

Current drivers were asked if they made various driving errors or lapses 'never', 'hardly ever', 'sometimes', 'a lot of the time', or 'almost all the time'. These driver behaviours were taken from the Manchester Driver Behaviour Questionnaire sub-scales 'lapses' and 'errors' (Reason et al, 1990). No time period was defined for making these lapses or errors. The results are shown in Table 20. The majority of respondents said that they never, or hardly ever exhibited any of the driver behaviours listed. Findings were similar to those of the 2015 survey, which had asked respondents about only the first four driving lapses. Respondents were most likely to report occasional lapses such as getting into the wrong lane when approaching a junction; underestimating the speed of an oncoming vehicle; or misreading signs.

**Table 20: Current drivers: frequency of driver lapses and errors**

| Statement | Never | Hardly ever | Sometimes | Lot of the time | Almost all the time | Sig. dif. males v females |
|---|---|---|---|---|---|---|
| **Lapses** | | | | | | |
| Do you forget where you left your car? | 1640 (61.5%) | 710 (26.6%) | 299 (11.2%) | 19 (0.7%) | 0 | p=0.0001 |
| Do you get into the wrong lane when approaching a roundabout or junction? | 744 (27.9%) | 1375 (51.5%) | 535 (20.1%) | 13 (0.5%) | 1 (0%) | not sig. |
| Do you misread the signs, exit from a roundabout on wrong road? | 1203 (45.1%) | 1161 (43.5%) | 300 (11.2%) | 4 (0.1%) | 0 | not sig. |
| Do you switch on one thing, meaning another? (e.g. wipers instead of indicators) | 1334 (50%) | 1029 (38.6%) | 293 (11%) | 11 (0.4%) | 1 (0%) | p = 0.05 |
| Hit something when reversing that you had not previously seen? | 1842 (69%) | 729 (27.3%) | 93 (3.5%) | 4 (0.1%) | 0 | not sig. |
| Realise you have no recollection of the road along which you have just been travelling? | 1346 (50.4%) | 849 (31.8%) | 453 (17%) | 17 (0.6%) | 3 (0.1%) | p = 0.05 |
| Intending to drive to destination A, you suddenly notice that you are on the road to destination B? | 1532 (57.4%) | 896 (33.6%) | 235 (8.8%) | 4 (0.1%) | 1 (0%) | p = 0.05 |
| **Errors** | | | | | | |
| On turning left, nearly hit a cyclist who has come up on your inside? | 2300 (86.2%) | 329 (12.3%) | 38 (1.4%) | 1 (0%) | 0 | not sig. |
| Fail to see pedestrians crossing? | 2060 (77.2%) | 565 (21.2%) | 40 (1.5%) | 2 (0.1%) | 1 (0%) | p = 0.01 |
| Underestimate the speed of an oncoming vehicle? | 1157 (43.4%) | 1271 (47.6%) | 230 (8.6%) | 8 (0.3%) | 2 (0.1%) | not sig. |
| Miss 'Give Way' signs | 2024 (75.9%) | 598 (22.4%) | 45 (1.7%) | 1 (0%) | 0 | not sig. |

There was a significant difference between men and women for four lapses and one error (Table 20). Women were more likely to sometimes have lapses, e.g. forget where they left their car (Figure 26), whereas men were more likely to make the error 'fail to see pedestrians crossing'.

There was a significant difference between drivers aged under 70 and those aged 70 and over for three lapses (forgot where they left the car; got into the wrong lane; and no recollection of the road just travelled) and one error (failing to see a cyclist). In all cases younger drivers were more likely to report occasional lapses or errors than older drivers (p = 0.01).

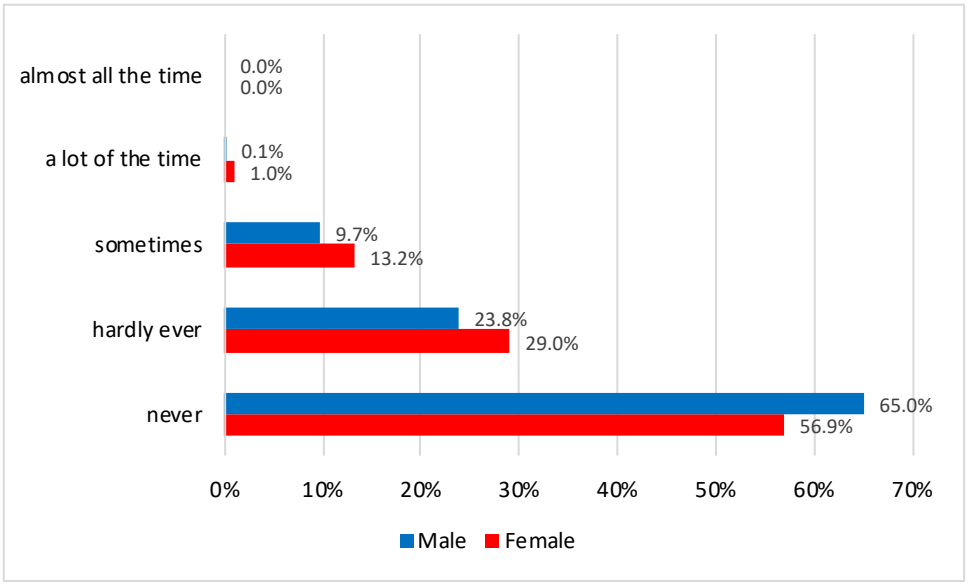



**Figure 26: Forgetting where I left my car: men and women (%)**

## 3.13.9 Knowledge of current driving regulations

Drivers were asked how up to date they were with current driving regulations (e.g. the Highway Code or DVLA website). Overall, a third of current drivers (857 people) had checked current driving regulations within the last year. A similar number, 32% of drivers (847 people) had not checked the regulations at all, or it was over five years since they checked. There was a significant difference between men and women ($p = 0.01$, $X^2 = 16.67$, $df = 5$). Men had checked slightly more recently than women and more women than men said they had not checked at all, or did not know when they last checked. Figure 27 shows the results.

There was a significant difference between older and younger drivers (Figure 28). Drivers aged 80 and over had checked the regulations more recently than both drivers aged 70-79 years and drivers aged 60-69 years ($p = 0.0001$, $X^2 = 51.62$, $df = 10$). This may be because from age 70 drivers would have to renew their driving licence every three years and visit the DVLA website to do this. These findings are similar to those of the 2015 study.

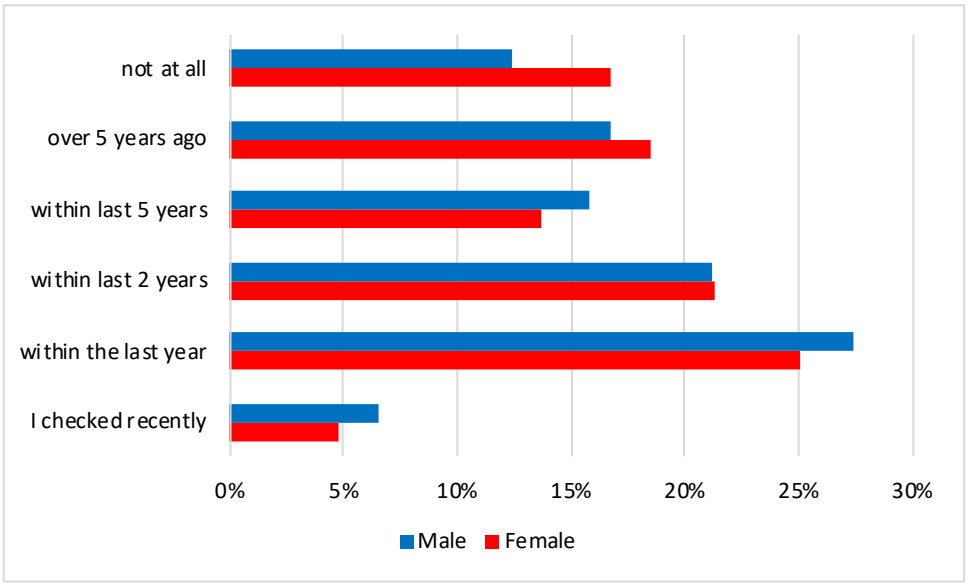



**Figure 27: When did you last check current driving regulations?: men and women**

## 3.13.10 Accident involvement

Current drivers were asked if, in the last three years, they had been involved in any accidents whilst driving. The majority had not, only 164 drivers said they had. Of these, almost two thirds were men (103, 63%, 61, 37% women). There was a similar difference between older and younger drivers for accident involvement, with younger drivers accounting for 62% (101) of the accidents.

Most of the drivers who had been involved in an accident said it was not their fault (98, 60%). Most accidents took place on a public road (125, 76%), and 39 (24%) were in a car park, driveway or private road. In most cases, the respondent's car was hit by another vehicle (93, 57%). In 46 cases (28%), the respondent's car hit another vehicle; and in 23 cases (14%) the respondent's car hit an object (e.g. wall, tree or animal). The police attended only 19 (12%) of these accidents, and someone was injured in only 4 of the accidents.

## 3.13.11 Giving up driving

Current drivers were asked to state for how many years they expected to keep driving. Overall, the mean number of years was 12.3 (SD = 6.4) with a range of 0 to 42 years. When the data were analysed by gender, there was no significant difference between men and women. Men expected to keep driving for 12.4 more years (SD = 6.43) and women for 12.1 more years (SD = 6.35). The average age at which drivers intended to give up driving was 82.1 years (SD = 6.53) which is exactly the same as found in the 2015 study.

When the data were analysed by age group, there was a highly significant difference between current drivers aged under 70 and those aged 70 and over ($p = 0.0001$, $t = 26.72$, $df = 1$). Younger drivers expected to keep driving for a further 15.1 years (SD = 6.26) and older drivers expected to keep driving for a further 8.96 years (SD = 4.78). There was a significant difference between older and younger drivers for the average age they would give up driving: age 85.3 for older drivers and 79.4 for younger ($p = 0.0001$, $t = -24.7$). These findings are very similar to those of the 2015 survey.

Current drivers were asked if they had ever considered giving up driving. Only 236 (8.8%) said they had. 2432 respondents (91.2%) said that they intended to continue driving.

Drivers were asked if the Covid-19 situation had affected their thinking about giving up driving. Only 72 respondents (3%) agreed. Of these, 61% (44) said they were more likely to give up driving and 39% (28) less likely.

Drivers were then asked to rate their agreement with a series of statements relating to circumstances which may cause them to consider giving up driving in the future. Ratings were on a 5 point scale from strongly agree to strongly disagree. Table 21 shows the results which are very similar to those of the 2015 study, with two additional questions.

**Table 21: Current drivers: levels of agreement relating to circumstances which may cause drivers to consider giving up driving in the future (n = 2668)**

| Statement | Strongly Agree | Slightly Agree | Neutral | Slightly Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| If I had difficulty getting motor insurance or it became too expensive | 530 (19.9%) | 1054 (39.5%) | 607 (22.8%) | 276 (10.3%) | 201 (7.5%) |
| If the cost of motoring became too high | 490 (18.4%) | 944 (35.4%) | 621 (23.3%) | 376 (14.1%) | 237 (8.9%) |
| If I had health problems which affected my driving | 1873 (70.2%) | 659 (24.7%) | 88 (3.3%) | 29 (1.1%) | 19 (0.7%) |
| If I was advised not to drive by a health professional | 2056 (77.1%) | 501 (18.8%) | 78 (2.9%) | 18 (0.7%) | 15 (0.6%) |
| If I was involved in a road accident | 298 (11.2%) | 573 (21.5%) | 1125 (42.2%) | 422 (15.8%) | 250 (9.4%) |
| If family or friends urged me to stop driving | 565 (21.2%) | 1082 (40.6%) | 735 (27.5%) | 201 (7.5%) | 85 (3.2%) |
| If public transport was more reliable, flexible and safe | 400 (15%) | 681 (25.5%) | 879 (32.9%) | 374 (14%) | 334 (12.5%) |

There were significant differences between men and women for four of the above statements (p=0.01). Figure 29 shows the percentage of men and women who agreed (strongly or slightly) with each statement. Men were more likely than women to agree that the cost of insurance or motoring was a factor in considering giving up driving. Women were more likely to consider giving up driving if they were involved in an accident, or their family or friends urged them to give up. There were no gender differences for statements involving health or public transport.

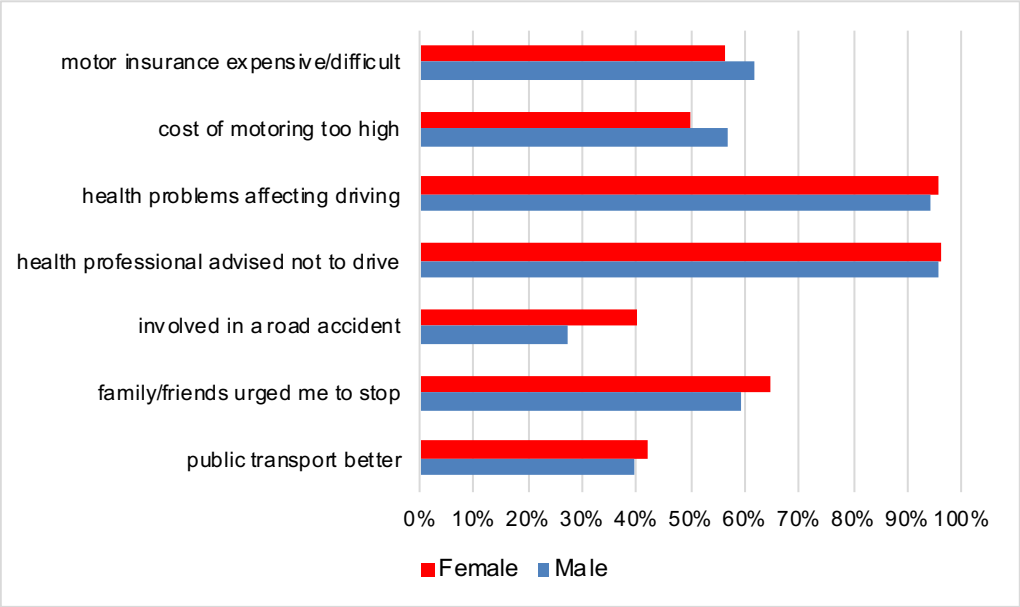



**Figure 29: Agreement with statements of circumstances which may cause drivers to consider giving up driving: males and females (n = 2668)**

There were significant differences between age groups for three statements. Drivers aged 70 and over were more likely to consider giving up driving if a health professional advised them to (p = 0.02); if they were involved in an accident (p = 0.001); or their friends or family urged them to stop (p = 0.01).

## Reasons for giving up driving

The issue of giving up driving was probed further by asking respondents to choose between two answers: a) I am thinking of giving up driving or b) I intend to continue driving for the foreseeable future. The majority of current drivers (2588, 97%) said they intended to continue driving for the foreseeable future. This finding is very similar to the 2015 survey, where 98% said they intended to continue driving.

The 80 people who said they were thinking of giving up driving were asked: 'what would be the most important issue involved in your decision to give up driving?'. The answers are summarised in Table 22 below.

**Table 22: Current drivers: Most important reasons for deciding to give up driving**

| Most important reason to give up driving | Frequency | Percent |
|---|---|---|
| health reasons | 18 | 22.5% |
| failing eyesight | 11 | 14% |
| increased traffic/other drivers | 10 | 12.5% |
| if I felt I was a danger to others | 7 | 9% |
| public transport available | 7 | 9% |
| age | 6 | 7.5% |
| no longer enjoy it | 5 | 6% |
| safety reasons | 3 | 4% |
| don't use the car enough | 3 | 4% |
| having accidents | 3 | 4% |
| cost | 2 | 2.5% |
| environmental reasons | 2 | 2.5% |
| loss of confidence | 1 | 1% |

## 3.13.12 Most important reason to continue driving

The 2588 current drivers who intended to continue driving were asked 'What do you see as the most important reason you continue to drive?'. Most drivers (2560) gave a reason, 28 did not say. Many drivers gave several reasons within the free text box. Table 23 shows the first reason they wrote down, as this was likely to be the most important reason. There was a significant difference in the reasons given by men and women ($p = 0.0001$, $X^2 = 161.5$, $df = 19$).

The two main reasons were independence (18%, 456) and convenience (15%, 377). These were also the two main reasons given in the 2015 survey. Independence was particularly important for women, with over a quarter saying this was the main reason to continue driving. The third main reason for driving was no alternative to a car (277 drivers), usually because they lived in a rural area. Twice as many men as women said that pleasure or leisure was the main reason for driving. Men were also more likely to give 'freedom' as the main reason for driving. For 202 drivers, the freedom that driving gives was most important to them. The top ten reasons for driving are shown by gender in Figure 30.

When the results were analysed by age groups, there were also significant differences in reasons given by drivers aged 60-69 and those aged 70 and over ($p = 0.0001$, $X^2 = 85.9$, $df = 19$). Younger drivers were more likely to say that flexibility of travel; freedom, or work was the main reason to continue driving. Older drivers were more likely to say that convenience; mobility; pleasure and leisure; mobility; or shopping were the main reasons.

Many respondents gave more than one reason for continuing to drive. These were categorised and counted in order to capture these many reasons and to identify how many drivers felt they were important. For example, independence was given as the first reason by 456 people, but actually 510 respondents mentioned it as one of the main reasons they continued to drive. Flexibility was the most frequently cited reason (548 respondents). When all reasons were counted, independence and convenience were both cited by 19% of respondents. Table 24 shows the number of respondents citing each reason, regardless of whether it was the first or last on their list of reasons.

**Table 23: Current drivers: First most important reason to continue driving**

| First most important reason to continue driving | Female | Male | All |
|---|---|---|---|
| Independence | 304 (27.1%) | 152 (10.4%) | 456 (17.6%) |
| Convenience | 149 (13.3%) | 228 (15.6%) | 377 (14.6%) |
| No alternative to car | 131 (11.7%) | 146 (10%) | 277 (10.7%) |
| Flexibility of travel | 107 (9.5%) | 169 (11.5%) | 276 (10.7%) |
| Freedom | 84 (7.5%) | 155 (10.6%) | 239 (9.2%) |
| Pleasure and leisure | 47 (4.2%) | 121 (8.3%) | 168 (6.5%) |
| Mobility | 57 (5.1%) | 107 (7.3%) | 164 (6.3%) |
| Visiting family and friends | 53 (4.7%) | 54 (3.7%) | 107 (4.1%) |
| Work | 34 (3%) | 63 (4.3%) | 97 (3.7%) |
| Supporting/transporting others | 32 (2.8%) | 47 (3.2%) | 79 (3.1%) |
| I feel fit to drive | 20 (1.8%) | 53 (3.6%) | 73 (2.8%) |
| Shopping | 25 (2.2%) | 33 (2.3%) | 58 (2.2%) |
| Necessity | 17 (1.5%) | 36 (2.5%) | 53 (2%) |
| Illness or disability (self or other) | 21 (1.9%) | 27 (1.8%) | 48 (1.9%) |
| Quality of life | 15 (1.3%) | 25 (1.7%) | 40 (1.5%) |
| Safety | 13 (1.2%) | 16 (1.1%) | 29 (1.1%) |
| To avoid isolation | 5 (0.4%) | 2 (0.1%) | 7 (0.3%) |
| I want to drive | 1 (0.1%) | 5 (0.3%) | 6 (0.2%) |
| Cheaper than other transport | 0 | 6 (0.4%) | 6 (0.2%) |
| Did not say | 8 (0.7%) | 20 (1.4%) | 28 (1.1%) |
| **Total** | **1123 (100%)** | **1465 (100%)** | **2588 (100%)** |

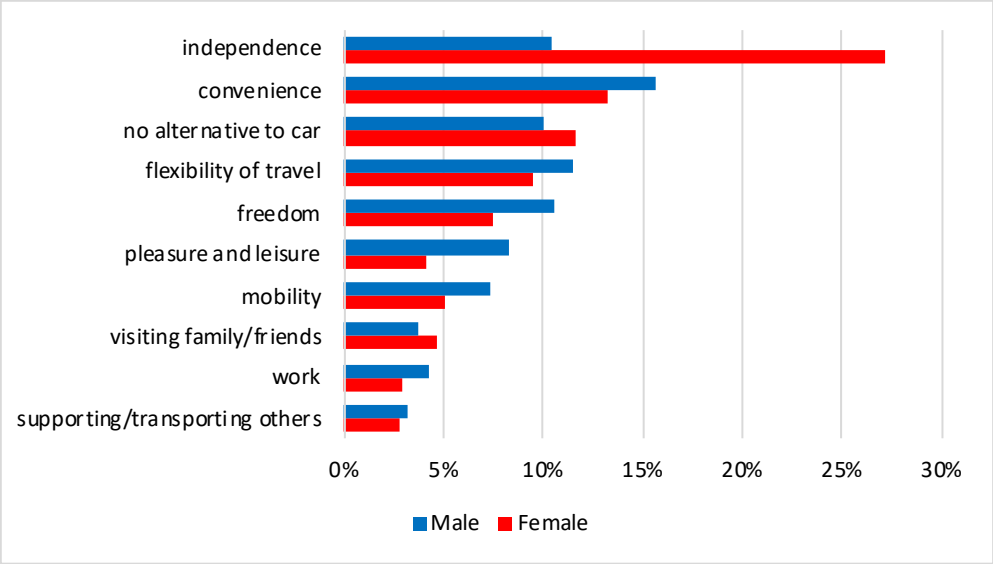



**Figure 30: Current drivers: Most important reason to continue driving by gender (n = 2588)**

**Table 24: Current drivers: Main reasons to continue driving**

| Main reasons to continue driving | Number | Percent |
|---|---|---|
| Independence | 510 | 19.7% |
| Convenience | 502 | 19.4% |
| No alternative to car | 374 | 14.5% |
| Flexibility of travel | 548 | 21.2% |
| Freedom | 289 | 11.2% |
| Social and leisure | 332 | 12.8% |
| Pleasure | 101 | 3.9% |
| Mobility | 244 | 9.4% |
| Work | 125 | 4.8% |
| Supporting/transporting others | 114 | 4.4% |
| Shopping | 171 | 6.6% |
| Necessity | 135 | 5.2% |
| Quality of life | 94 | 3.6% |
| Safety | 64 | 2.5% |
| Because I can/I want to drive | 70 | 2.7% |

## Qualitative analysis

The free text responses were further analysed with the aid of NVivo software for qualitative data. Figure 31 shows a word cloud of the 50 most frequently used words by respondents to describe their main reasons for continuing to drive.


**Figure 31: Word Cloud of 50 most frequently used words to describe main reasons for continued driving**

Common themes surrounding continued driving included independence, public transport, convenience and flexibility, transporting others, keeping social contact and safety. Some quotations from respondents illustrate these themes. All quoted comments are in response to the question 'What do you see as the most important reason you continue to drive?'.

## Independence

The mention of independence was often coupled with other comments such as poor public transport, living alone, and freedom. For example:

> *"If I continue to drive it gives me independence and I need that as I live alone."*

> *"My independence and freedom to go anywhere without restriction."*

> *"Independence, particularly in an area with poor public transport."*

## Public transport

Living in a remote or rural area with poor public transport was frequently given as a reason to continue driving. It was also seen as slow and potentially unsafe due to the Covid pandemic. For example:

> *"No close or frequent bus service; local bus service goes nowhere near places need to visit for appointments, hospital, shopping, etc."*

> *"We live in a remote area, my wife cannot walk very far and public transport is very limited."*

> *"Covid 19 and convenience. To drive for half an hour to relatives would require several hours each way by public transport."*

If they could not drive some respondents said they would have to move home, as transport links were absent or poor. For example:

> *"I would have to move house if I could not drive and I don't want to move."*

or more simply:

> *"I couldn't get anywhere if I didn't drive."*

## Convenience and flexibility

The convenience and flexibility that driving gives was very important to many respondents. This included being able to travel where and when they wanted, and helping them to maintain contact with family, friends and hobbies. For example:

> *"Flexibility on the convenience of my choice on when & where I need to go."*

> *"Flexibility in getting out, being independent, sustaining social contact with friends and family."*

> *"Ability to see family who live where there are no public transport links between them and my own home."*

> *"My social life would collapse without my car."*

## Mobility issues

For those with mobility issues, or with a relative who had a disability, the need to drive was particularly important. For example:

> *"I am disabled. I would hate to lose the freedom to leave the house when I needed to."*

> *"I have limited mobility so being able to drive is a lifeline."*

> *"I am disabled so would be completely housebound if I didn't drive. I have no friends or relatives who could either take me somewhere as a passenger or do things like shop for me."*

## Covid-19 pandemic

Some respondents said that the Covid pandemic had made them more keen to continue driving. For example:

> *"I now use my car and have given up public transport of all kinds for fear of infection by Covid."*

> *"Covid-19 safety and to take my wife to appointments as she cannot walk far."*

## Continue to drive with awareness of limitations

Some respondents needed to drive, but restricted their driving:

> *I drive locally, no long distances. I need to drive to medical appointments.*

Some respondents qualified their comments by saying if they felt they were becoming unsafe drivers they would ask their GP for advice.  For example they would continue driving:

> *On condition that I am confident that I am safe with myself , passengers and other road users - any doubt and I would consult my GP.*

> *At the moment I am fit for my age, and I get a full medical each year.*

## 3.14 Attitudes towards possible methods of maintaining good levels of road safety

Respondents were asked to indicate their agreement or disagreement with a number of statements describing possible ways of ensuring that drivers are fit to drive. These statements included eyesight and medical testing of drivers as they get older, and re-testing of drivers at certain ages. Table 24 shows the results. The responses are broadly similar to those achieved in the 2015 survey. For the current survey, an extra question was added to the 2015 survey questions about raising the age of licence renewal from 70 to 75. We also modified two other questions: Regarding statements about re-testing drivers at age 70 we altered this to ask about re-testing 'senior drivers'.

The data were analysed by driver status (current or ex-driver). There were significant differences ($p = 0.01$) between the groups for all statements except for 'General Practitioners should inform patients if their medical condition affects their fitness to drive', which received strong support from all groups. In particular, ex-drivers were significantly more likely to strongly agree with statements about re-testing of drivers (all drivers and senior drivers), and that drivers should have a medical examination around age 70. Ex-drivers were also more in favour of flexible licensing and less in favour of raising the age of licence renewal to 75.

The data were further analysed by age group, for respondents aged under 70 and those aged 70 and over. Using the 5 point scale (strongly agree, slightly agree, neutral, slightly disagree and strongly disagree) there were significant differences between the groups for all but three statements: a) that senior drivers should be re-tested every five years after licence renewal; b) that General Practitioners (GPs) should inform patients if their medical condition affects their fitness to drive; and c) that the age of licence renewal should be raised to age 75.

Older respondents were more in favour of a) all drivers should be re-tested every 10 years after their first test; b) all drivers should have an eyesight test every 10 years; and c) a DIY testing kit which enabled drivers to assess their own fitness to drive.

Younger respondents were more in favour of a) drivers undergoing a medical examination around age 70; and b) a flexible licencing system.

**Table 24: All respondents: Levels of agreement with suggested methods of increasing driving safety among older drivers (n = 3062)**

| Statement | Strongly Agree | Slightly Agree | Neutral | Slightly Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| Drivers should be re-tested every 10 years after passing first driving test | 571 (18.6%) | 859 (28.1%) | 786 (25.7%) | 421 (13.7%) | 425 (13.9%) |
| Senior drivers should be re-tested every five years after renewing their driving licence | 726 (23.7%) | 970 (31.7%) | 631 (20.6%) | 346 (11.3%) | 389 (12.7%) |
| All drivers should pass an eyesight test every 10 years | 1761 (57.5%) | 853 (27.9%) | 293 (9.6%) | 78 (2.5%) | 77 (2.5%) |
| Senior drivers should have to pass an eyesight test every five years after renewing their driving licence | 1610 (52.6%) | 937 (30.6%) | 326 (10.6%) | 108 (3.5%) | 81 (2.6%) |
| Around age 70, drivers should be required to have a medical examination | 795 (26%) | 923 (30.1%) | 717 (23.4%) | 345 (11.3%) | 282 (9.2%) |
| GPs should be required to inform patients if their medical condition may affect their fitness to drive | 2325 (75.9%) | 541 (17.7%) | 145 (4.7%) | 21 (0.7%) | 30 (1%) |
| A flexible licensing system should be introduced to limit everyone's driving regarding health, ability, driving record | 525 (17.1%) | 885 (28.9%) | 1041 (34%) | 300 (9.8%) | 311 (10.2%) |
| If there was a DIY kit to test for important basics of driving ability I would use it | 960 (31.4%) | 1016 (33.2%) | 727 (23.7%) | 205 (6.7%) | 154 (5%) |
| The age at which drivers renew their driving licence should be raised from 70 to 75 | 685 (22.4%) | 805 (26.3%) | 869 (28.4%) | 449 (14.7%) | 254 (8.3%) |

### 3.14.1 Driver re-testing

Older respondents showed significantly more agreement with the statement that all drivers should be re-tested every ten years after passing their first driving test ($p = 0.0001$, $X^2 = 24.7$, $df = 4$). Figure 32 shows the results. This contrasts with the 2015 survey results which showed that younger respondents were more in favour of driver re-testing. However, drivers aged 55 – 59 were included in the 2015 survey which may partially account for the difference.

There was no significant difference in the responses of older and younger respondents for the statement: senior drivers should be re-tested every five years. Overall, 55% agreed, 24% disagreed and 21% were neutral. However, younger respondents were slightly more in favour of the idea.

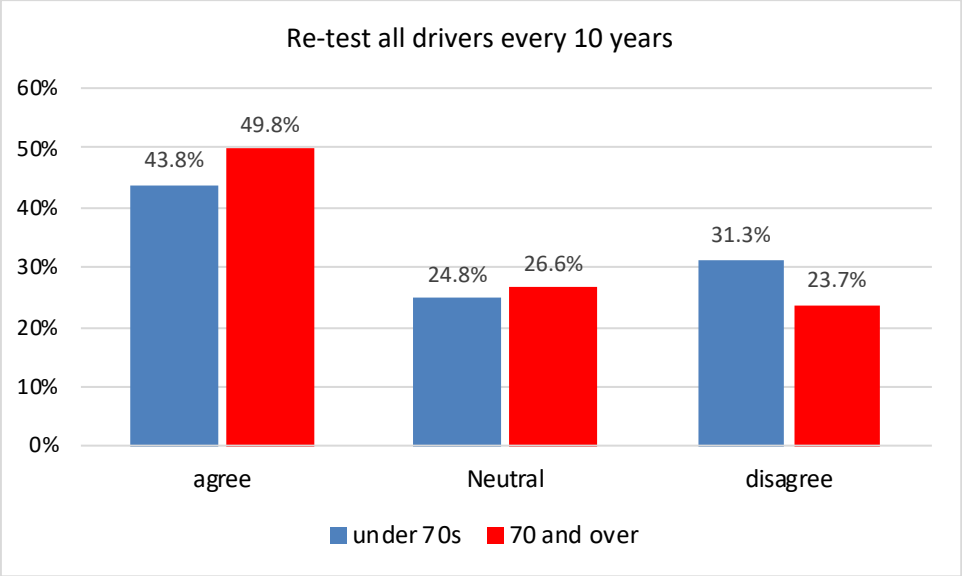



**Figure 32: All drivers should be re-tested every ten years (n = 3062)**

### 3.14.2 Eyesight testing

The majority of respondents agreed that there should be regular eyesight testing for all drivers. Over half of all respondents strongly agreed. Older respondents showed significantly more agreement with the statement that all drivers should have to pass an eyesight test every ten years than younger respondents ($p = 0.001$, $X^2 = 13.13$, $df = 2$). Figure 33 shows the results.

There was no significant difference between younger and older respondents regarding the statement that senior drivers should have to pass an eyesight test every five years, both groups showed over 80% agreement with this statement.

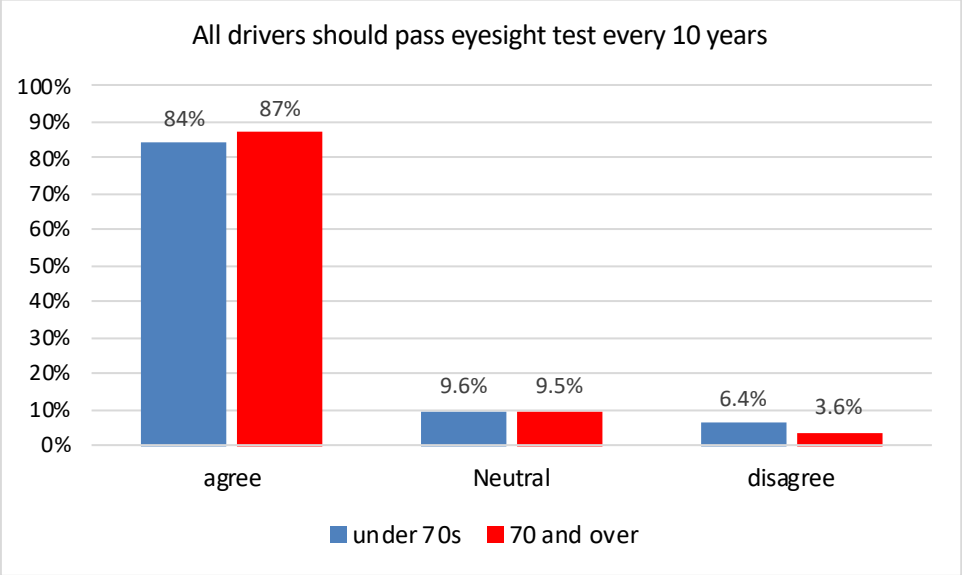



**Figure 33: All drivers should pass an eyesight test every 10 years (n = 3062)**

### 3.14.3 Health, testing and advice

Over a quarter of respondents were neutral about the statement that drivers should undergo a medical examination around the age of 70. There was a significant difference between age groups, with more agreement among younger drivers ($p = 0.0001$, $X^2 = 35.92$, $df = 4$). Figure 34 shows the results.

There was very strong agreement by all respondents that GPs should be required to inform patients if their medical condition may affect their fitness to drive. Over three-quarters of respondents strongly agreed. There were no differences between age groups, there was over 90% agreement from both older and younger drivers. Only 51 (1.7%) respondents disagreed with this statement.

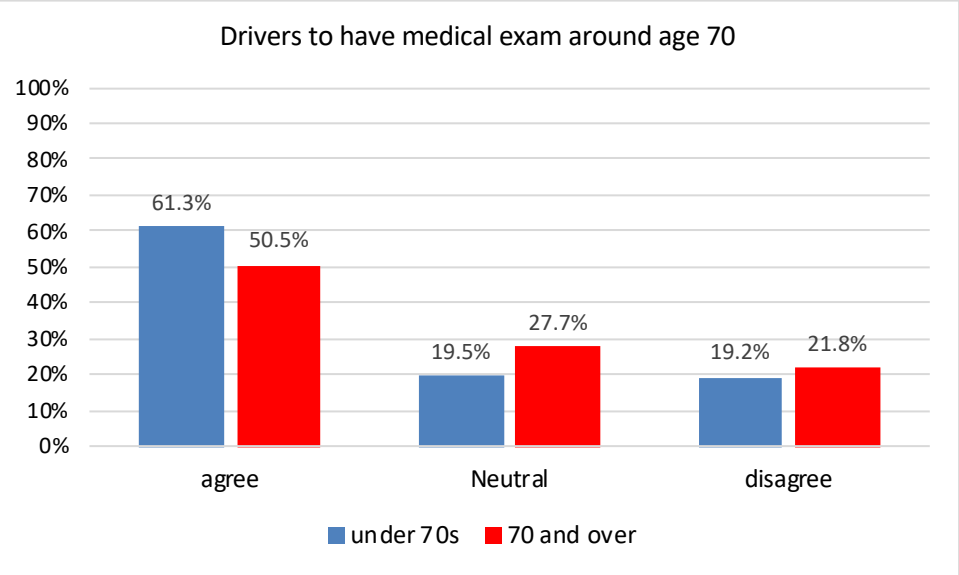



**Figure 34: Drivers should be required to have a medical examination around age 70 (n = 3062)**

### 3.14.4 Flexible or restricted licensing

Respondents were asked to indicate their agreement regarding the introduction of a flexible licensing system which would more flexibly limit various aspects of driving with regard to health, ability and driving record. Examples given were a restricted licence to drive only in daylight or on local roads. Only 525 (17%) of respondents strongly agreed with this statement. There was a small difference between age groups, with younger respondents more in favour of flexible licensing than the older group ($p = 0.02$, $X^2 = 11.9$, $df = 4$). Figure 35 shows agreement and disagreement.

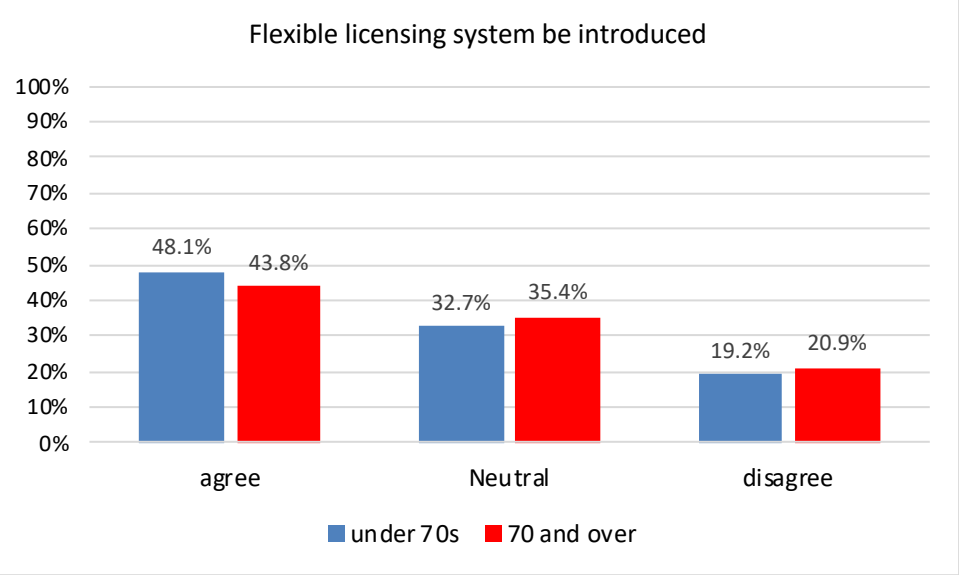



**Figure 35: A flexible licensing system should be introduced to limit everyone's driving regard to health, ability, driving record (n = 3062)**

### 3.14.5 A 'do-it-yourself' kit to assess fitness to drive

Respondents were asked if they would use a 'do-it-yourself' kit which enables drivers to test themselves for important basics of driving ability (e.g. vision, mental quickness, etc.) if one was available. The majority of respondents (1976, 64.5%) agreed that they would use it. There was a significant difference between age groups (Figure 36), with older respondents more in favour ($p = 0.001$, $X^2 = 24.4$, $df = 4$).

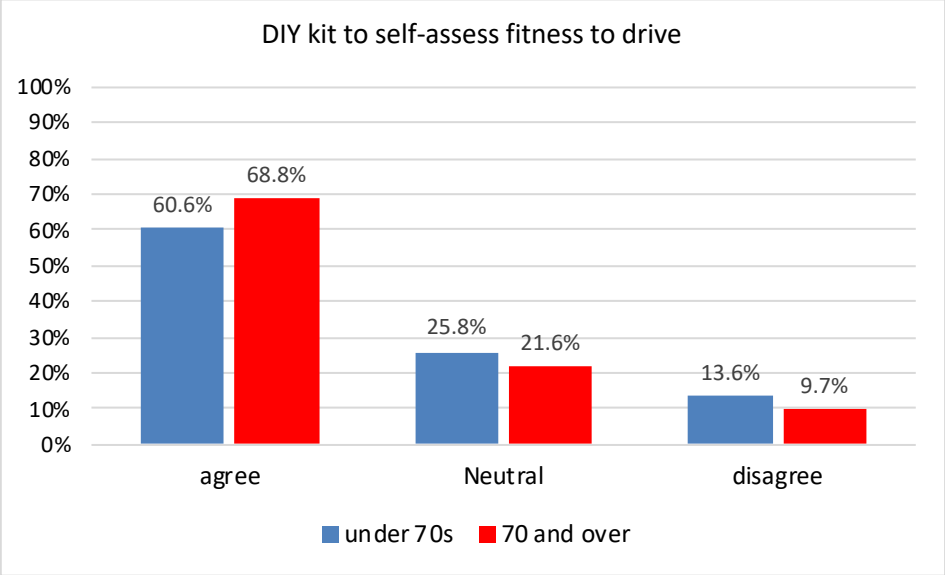



**Figure 36: If there was a DIY kit to test for important basics of driving ability I would use it (n = 3062)**

The self-ratings of driving ability were compared to responses on this question. Drivers who rated their driving ability as 10 out of 10 (excellent) were significantly less likely to agree to using a D-I-Y test kit. For drivers rating their ability as 6, 7, 8 or 9, 68 – 69% agreed or strongly agreed to the test kit compared to 56.7% agreement from the 'excellent' drivers.

## 3.15 Most influential people to advise on giving up driving

All 3062 respondents were asked to rank four groups of people who may give advice on giving up driving. The four groups were GP/doctor; Optician/Optometrist; Family/friends; and Police. Half the respondents (1548, 51%) ranked GPs/doctors as the most influential givers of advice on giving up driving. The second highest ranking was for Opticians/Optometrists, with 1121 respondents (37%) ranking them as most influential and 1475 (48%) ranking them as second most influential. Family and friends were the least influential givers of driving advice, with 2042 respondents (67%) ranking them lowest. Figure 37 shows the results in rank order, with rank 1 as most influential and rank 4 as least influential. In the 2015 survey, the overall rankings were the same as in 2020: doctors 1st, optometrists 2nd, police 3rd and family/friends 4th (Figure 38). However, the influence of doctors and optometrists has risen since 2015 and the influence of the police and family and friends has fallen.

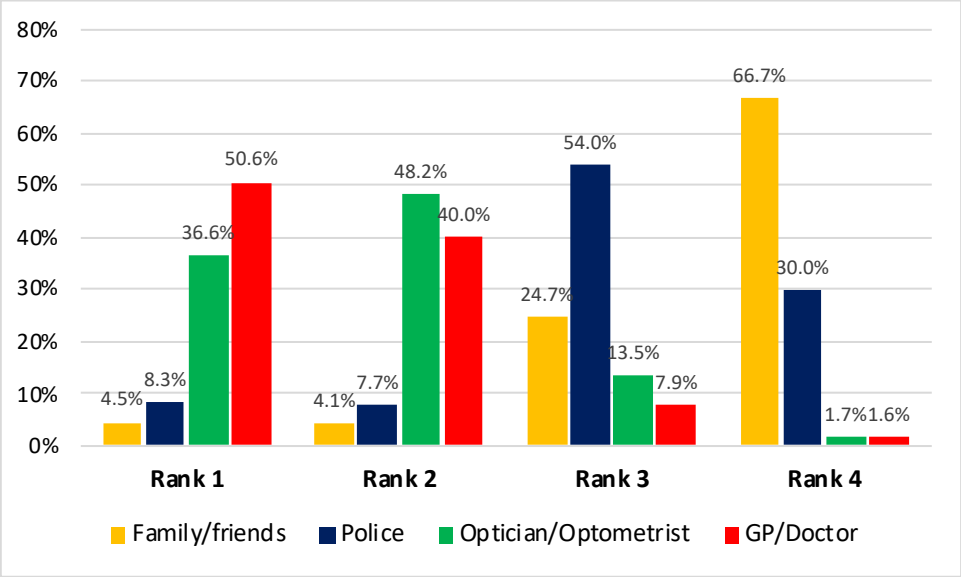



**Figure 37: 2020 Rankings of the influence of different groups on giving advice on stopping driving (n = 3062)**

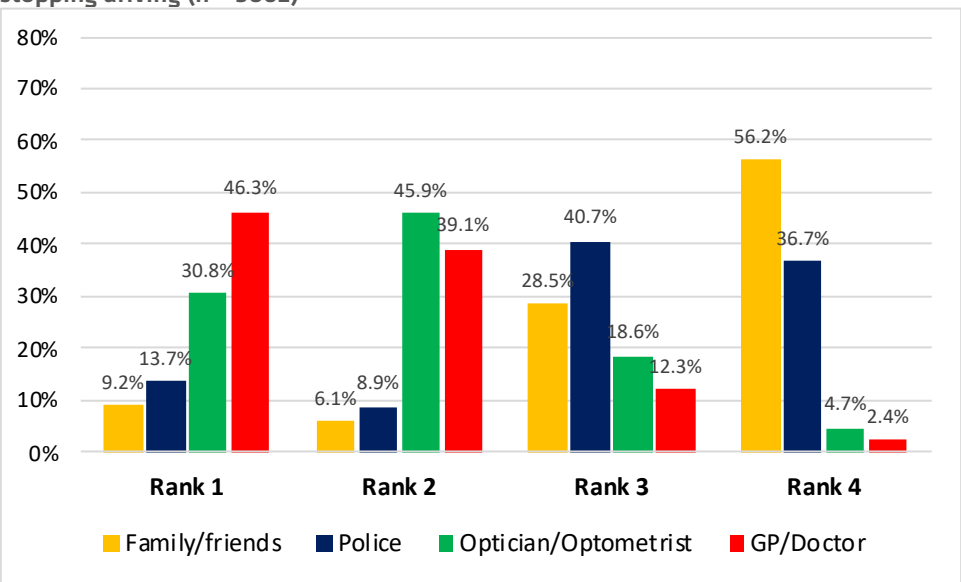



**Figure 38: 2015 Rankings of the influence of different groups on giving advice on stopping driving (n = 2619)**

# 4. Summary and discussion

The results of this survey are broadly similar to those found in the previous survey carried out in 2015. This is despite raising the age of participants to 60. The similarity of results confirms the reliability of the methodology and gives confidence in the findings. The study achieved a good geographical spread with all four nations represented. However, the South East of England was slightly over-represented. A significant proportion of respondents lived in suburban areas. Current drivers were more likely to live in rural and suburban areas and ex-drivers more likely to live in towns and cities which had more accessible and frequent public transport.

The majority of drivers said that driving was very important to them, this was especially true for women and rural residents. Most drivers rated their driving ability as good to excellent. Men rated their confidence as a driver significantly more highly than women. These findings are similar to those of the 2015 study.

The average mileage travelled by our survey respondents was 5786 miles. Men had higher average mileage (6607 miles) than women (4708). These figures are high compared to the National Travel Survey (NTS) for England. The NTS provides figures for the average number of miles driven by English residents by age group. In 2017, drivers aged 60-84 years had a weighted average mileage of 2936 miles. This rose to 4296 miles for rural residents and fell to 2541 for urban residents (Department for Transport, 2019). The NTS also found that men in this age group had a significantly higher average mileage (4413) than women (1630). For rural residents, the NTS found that men had an average of 6043 miles and women 2663 miles. In the current study, 60% of respondents lived in suburban or rural areas which may partially account for the high mileage rates found. However, in a comparison between urban and rural residents for mean annual mileage rates, we found a smaller difference between these groups, with rural residents driving an average of 6345 miles/year and urban residents driving an average of 5674 miles. These figures are much higher than the NTS figures.

The most recently published National Travel Survey (NTS) was carried out in 2019 (Gov.UK, 2020), this annual survey uses a sample of British residents weighted to ensure the characteristics of the sample match the population of Great Britain. The 2019 survey found that shopping and day trips are the most frequent reasons for travel in older age groups. Further, for men aged 70 and over, shopping was the most popular reason for travelling. The NTS found that for men, the number of shopping trips per person per year increased with age from 279 trips for 60-69 year olds to 327 trips for those 70 years and over. For women, 60-69 year olds made 289 shopping trips dropping to 259 for those aged 70 and over. The current study reflects this. We found that shopping, visiting friends or relatives, and leisure activities were the main reasons for travel for over 75% of current drivers. Drivers aged 70 and over were more likely to travel for these reasons than 60-69 year olds. Results also showed that shopping was the most popular reason for travel among men (87% said shopping was a main reason for travel). Men were also more likely than women to cite leisure activities as a main reason for travel.

## Covid-19

The study was carried out during the Covid-19 pandemic, so the questionnaire was adapted to incorporate questions to capture the effect the pandemic was having on driving patterns and thoughts about giving up driving. Invitations to take part in the survey were sent out in June 2020, when the UK was at Level 4 (severe risk, high transmission) and under lock-down restrictions. A Covid-19 Timeline for England (Transport Technology Forum, 2021) is shown in Appendix II. Respondents were asked to state whether their use of various means of transport had decreased, increased or stayed the same since the pandemic. Results showed a large decrease in car use which corresponds with the travel restrictions associated with the first Covid lockdown. Confidence in using public transport had decreased and several respondents said they would not use it due to safety fears. There was a significant increase in walking, although over a third of respondents also said they walked the same as before Covid.

The survey results show that the Covid pandemic was already having an effect on access to healthcare and eye care, with significant numbers of respondents reporting missing a routine sight test or being unable to see a doctor. This is concerning as the majority of respondents had a medical condition which may affect driving. Prior to Covid, over half of the respondents aged 70 or over said they had annual sight tests. As the survey was carried out in the early stages of the pandemic, it may be assumed that a year on, many more people are missing sight tests which could mean that their driving safety is compromised.

## Self regulation and driving avoidance

It is often reported that older drivers self-regulate by avoiding certain driving situations. However, we found low levels of driving avoidance, with most drivers avoiding difficult situations only 'sometimes'. For most difficult situations, fewer than 10% 'often' avoided them. Sullivan et al (2011), in a study of drivers aged 65 and over, also found that few of them engaged in regular driving avoidance. As with the current study they found that the highest avoidance rating was for driving in the rain at night.

The current study found that women were significantly more likely than men to self-regulate. In particular, women were far more likely to avoid driving at night; at night in the rain; at peak times; on motorways; long distances; and when feeling tired. This finding is consistent with that of Gwyther and Holland (2012) who also found that women engage in self-regulation more frequently then men. There were few differences between the 60-69 year olds and those aged 70 and over. This may be partially explained by the fact that all respondents were 'senior' drivers and there were limited numbers of drivers aged over 80.

## Self-ratings of driving abilities

Respondents were asked to rate their driving ability in a variety of situations such as dividing attention, and judging the speed of oncoming traffic. Most respondents rated their ability in all situations as either 'good' or 'very good', with younger drivers rating their abilities more highly than older drivers. The most notable difference between younger and older drivers was the ability to cope with in-car technology in modern vehicles. Younger drivers were more likely to say their ability was good or very good. Gandolfi (2020), in her review of the literature, found that older drivers often reported difficulties with in-car technology, finding it distracting or difficult to use.

## Driving errors and lapses

This study used questions from the Driver Behaviour Questionnaire (DBQ) to examine driving errors and lapses. Errors are defined as mistakes which could have dangerous consequences whereas lapses are defined as failures of attention or concentration which are less likely to affect driving safety (Reason et al, 1990). However, Parker et al (2000) applied factor analysis to the DBQ and reported that high scores on both the error factor and lapse factor were predictive of involvement in an active accident, and high scores on lapse factors were associated with passive accident involvement. In the current study, women reported lapses more frequently than men. As only 164 respondents reported involvement in an accident whilst driving, it was not possible to examine the relationship between lapses and accidents.

The questionnaire did not include DBQ questions on violations, such as speeding; running a red light; or tailgating, as these were deemed to be intrusive questions that may put respondents off answering. Consequently it is not possible to provide information on these driver behaviours, except to see how many respondents said they had attended a speed awareness course as an alternative to prosecution. Eighty-eight respondents said they had attended such a course, which suggests that the majority of senior drivers in our sample are law-abiding. However, a recent Freedom of Information (FOI) request to the DVLA has shown that over 491,000 drivers aged 60 and over currently have penalty points on their driving record (DVLA, 2020). This figure includes 45,659 current drivers aged 80 and over with penalty points. When divided into 10 year age bands, the highest numbers of drivers with penalty points were in the age groups 31-40 years (577,220); 41-50 years (573,612), and 51-60 years (551,442). There were 279,241 drivers aged 61-70, and 129,864 drivers aged 71-80.

## Health issues and vision

Current drivers were most likely to consider giving up driving if they had health problems which affected their driving and if they were advised not to drive by a health professional. Furthermore, the vast majority of respondents agreed that doctors should be required to inform patients if their medical condition may affect their fitness to drive. This raises an important issue, as the literature highlights the complex nature of medical conditions, how they impact on driving performance, and the difficulty professionals face in making judgements over safety and when to advise an individual to stop driving (O'Neill, 1994; Ormerod and Heafield, 2007).

It is known that health professionals are often reluctant to advise a patient to cease driving even when that patient has a medical condition which can adversely affect fitness to drive (Hawley, 2010). It is recommended that health professionals are made aware of the importance of advising their patients about driving. In busy GP practices, this advice could be given by nurses after diagnosis of a medical condition affecting driving has been made by a doctor. Occupational therapists are also well placed to give driving advice as driving assessments are part of their role (Hawley, 2015).

In recent years Optometrists have become more comfortable about giving driving advice to their patients. This has been helped by production of guidelines from the College of Optometrists and the General Optical Council. This may be reflected in the rise in the number of respondents ranking Optometrists first or second in the most influential people to give advice on driving.

This study provides some evidence that drivers do stop driving if they have a medical condition affecting driving, as over two thirds of ex-drivers had such a condition. In 2015, we asked the DVLA how many senior drivers surrender their driving licence for medical reasons. Between 1990 and 2015, 135,557 drivers over the age of 70 had surrendered their driving licence for medical reasons (DVLA, 2015a). In the same period 5,201,676 drivers did not renew their licence, it is not known why this was, and some of these non-renewals could be due to failing health. A further 259,739 drivers surrendered their licence voluntarily, again the reason for this voluntary surrender is not known. In total, from 1990 to 2015, 5,596,972 drivers over 70 had surrendered or not renewed their licence (DVLA, 2015b).

For the current study, a FOI request was made to the DVLA to provide data on licence surrenders for medical reasons from 2000 to 2020. The figures provided represent the number of GB licence holders that surrendered their entitlement, and who had declared a medical condition to the DVLA. In the 20 years from 2000 to 2020, 220,952 drivers aged 70 and over had surrendered their licence for medical reasons (DVLA, 2021a). There were twice as many men (149,232) as women (71,720). Forty-four drivers were aged ≥100 at the time they surrendered their licence. During the same period, 294,890 drivers aged 60 and over surrendered their licence for medial reasons.

The number of drivers surrendering their licence for medical reasons has been increasing over the past twenty years. For example, in 2009, 8,338 men and 3,621 women aged ≥60 surrendered their licence to DVLA compared with 18,161 men and 9,926 women in 2019. There have been significant increases in licence surrenders from 2014 to 2019. In 2019, 14,538 men and 7,570 women aged ≥70 surrendered their licence for medical reasons, compared with 9,078 men and 4,439 women in 2014.

For the current study, a second FOI request was made to the DVLA to provide data for the number of drivers who did not renew their licence at age 70 and over, from 2011 to 2020. In 2020, due to the Covid pandemic, licences were automatically renewed by the DVLA, consequently the figures for non-renewals in that year are artificially high and were excluded. During the 9 full-year period 2011-2019, a total of 1,406,754 drivers aged 70 and over did not renew their licence (DVLA, 2021b). There was no significant difference between the number of men (796,775) and women (609,979) not renewing their licence. A quarter of both men (25.9%) and women (25.7%) did not renew their licence when they reached 70 years of age. During the 9 year period, 271 drivers did not renew their licence until they were over 100 years of age.

The total number of drivers aged ≥70 not renewing their licence has been steadily increasing in recent years from 145,712 in 2014 to 178,211 in 2019, particularly among those aged 91 and over. This is likely to be due to an ageing population, but increasing awareness of potential difficulties of driving in older age groups by both health professionals and the public may be having an effect.

In 2015, the DVLA provided a list of medical conditions associated with driving licence surrenders. In 2020, the DVLA were unable to provide an updated list so the 2015 data is presented again here. In the five years from May 2010 to May 2015, 58,489 drivers aged 70 and over surrendered their driving licence for medical reasons (DVLA, 2015b). The top ten medical conditions associated with licence surrender were Dementia, Stroke, Macular Degeneration, Parkinson's Disease, Vision (unspecified condition), Glaucoma, Diabetes, Heart conditions , Epilepsy, and Cataract.

Four of these ten conditions involve vision, which reinforces the importance of regular eyesight testing. It is recommended that the current system of self-certification for driver licence renewal at age 70 is changed to one where drivers need to pass an eyesight test. Most study respondents agreed that senior drivers should pass an eyesight test and over half agreed that at around age 70 drivers should have a medical examination in order to renew their driving licence.

# 5. Study limitations and future research

As with all research, there were limitations to both the 2015 and 2020 studies. Both suffered some response bias, in that the majority of respondents were from administrative, professional or managerial backgrounds with fewer respondents from manual and trade professions. This was despite particular efforts in the current study to target a greater proportion of manual and trade professions. The 2015 study recruited a low number of ex-drivers, and in the current study further efforts were made to increase the proportion of ex-drivers with some success. In view of this, the results of the 2020 survey of ex-drivers is probably more accurate than that carried out in 2015.

In 2015, the survey was carried out using both online and paper questionnaires, although most respondents used the online version. We also had access to the Warwick Research Panel which is a group of volunteers who participate in a range of surveys led by Warwick University. Due to the Covid pandemic, and concerns about contacting elderly volunteers at such a worrying time we were unable to use the Warwick Research Panel in 2020. Instead we relied on a market research company to recruit all of our survey respondents, and the survey was entirely online. This presents some limitations in that some older people do not have internet access or are not comfortable with computers. Although we raised the lower age for respondents from 55 years in 2015 to 60 in 2020, using a completely online survey the market research company struggled to recruit people aged over 75. It is recommended that the survey is repeated in paper form, targeting older drivers aged 75 and over and particularly ex-drivers.

The Covid-19 pandemic has affected all our lives in so many ways, including the way we travel. The use of a private car has become especially important during the pandemic, as many older people expressed fear of using public forms of transport. Future research should therefore explore implications of the pandemic on the future mobility choices of older drivers.

# 6. Summary and Conclusions

Most current drivers wish to continue driving for as long as possible, but when asked to choose an age when they might stop driving, the average age was 82. This was the same age found in the 2015 survey. The majority had never considered giving up driving, and most felt they were competent and confident drivers. Few current drivers said they avoided driving in difficult or stressful situations. Being able to drive gave independence, convenience and the freedom to travel when and where they wanted. Importantly, it enabled many to maintain the lifestyle and quality of life they enjoyed in retirement.

Most current drivers rated their driving ability highly, most men also rated their driving confidence as excellent or good. When asked if they would use a 'do-it-yourself' (D-I-Y) kit which enables drivers to test themselves for important basics of driving ability, the majority of respondents agreed that they would use it. This was particularly true for the over 70s age group. It is possible that those who were less enthusiastic are already confident of their driving abilities as those who scored their driving ability as excellent were less likely to agree to using the D-I-Y kit. This could pose a challenge to encouraging all drivers to critically examine their abilities regardless of their own perceived competence. The components of a D-I-Y kit are being explored by focus groups which form Phase 2 of this project.

Many ex-drivers had retained their driving licence, even though they had stopped driving. Poor health was the most important factor in making the decision to give up driving, followed by the cost of motoring and visual problems. When they were asked to rate their driving abilities on a range of factors such as reaction time, memory, and judgement of speed and distance, ex-drivers rated themselves as 'poor' or merely 'adequate' significantly more frequently than current drivers. Consequently, it appears that these drivers were probably correct in their decision to cease driving.

Almost all respondents said they would take the advice of a heath professional, particularly doctors and optometrists, if they advised them to stop driving. This reinforces the importance of the role health professionals have in maintaining road safety.

# 7. Recommendations

- The government should conduct a comprehensive review of the driver licensing and testing system in relation to the ever growing number of drivers over the age of 70 and beyond.
- Joint education campaigns are required to help drivers start to plan for giving up driving at an earlier stage. These could involve partnership working between government, health professionals, pension advisors, financial advisors and travel experts.
- A wider range of easily accessible mature driver focussed consumer information is needed on accessible vehicle designs, mobility features, journey planning and mobility costs to help inform these campaigns.
- As part of this approach mature driver reviews should be encouraged and the government should consider the idea of offering them on prescription to encourage uptake and equal access.
- GPs and Opticians/Optometrists are the most trusted and influential advisers on fitness to drive for older drivers, but their role in sharing information and advising on giving up driving must be clarified.
- Given this role, training for medical professionals and Opticians/Optometrists in the detection of driving issues, the best ways to discuss it, and the offering of advice must be updated in consultation with the professional governing bodies and colleges.
- Given the support for regular eyesight testing the government should consult on the right age to include evidence of an eyesight test as part of the licence renewal process as soon as possible.
- Any additional technology capacity required by agencies such as the DVLA to allow this to happen should be fully funded.
- The implications of the Covid-19 pandemic on the future mobility choices of older drivers would be a useful topic for further research.

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# Appendix I Survey Questionnaire

Dear Volunteer,

We are carrying out research with a leading UK road safety charity to find out how best to keep drivers safe and mobile for as long as possible. We would like to know which factors people consider when deciding to either keep driving or stop driving as they get older. We also wish to find out who or what may influence these decisions. We have devised a survey to capture this information and would be most grateful if you can spare the time to fill it in. Most of the questions require you to tick a box, and the whole questionnaire should take no longer than 15 minutes to complete.

We would like the views of both current drivers and ex-drivers who have given up driving. So even if you are not currently driving, your responses to this survey are very important to our research.

**Because of the current Coronavirus/Covid-19 situation, which has affected all of our mobility, we ask you to answer the questions as they relate to your driving habits before Coronavirus. We have also included a few questions asking how your driving mobility is currently affected by travel restrictions due to Coronavirus.**

Please note that all questionnaires are completed anonymously. We will not know your identity so all your responses are confidential. We ask for your age and postcode just so we can compare responses between people of different ages and living in different parts of the country.

**1.** Age last birthday _____

**2.** Gender Male ☐ Female ☐

**2.a** Are you retired? Yes ☐ No ☐ Partially ☐

**3.** What is your occupation (or, if retired, your previous occupation) _____

**4.** What kind of area do you live in?

City ☐
Town ☐
Suburban ☐
Rural or Village ☐

**4.a** Which country do you live in?

England ☐
Wales ☐
Scotland ☐
Northern Ireland ☐
Other (please specify) ☐

**5.** What is your postcode? ☐☐☐☐ ☐☐☐

**6.** Before Covid-19 what was the availability of public transport in your area?

Frequent ☐
Infrequent ☐
Not available ☐

**7. What are your usual means of getting around? please tick all that apply**

- Car as driver ☐
- Car as passenger ☐
- Private hire e.g. taxi ☐
- Public transport – bus, tram, train ☐
- Community organised transport ☐
- Motorbike/ motor scooter ☐
- Bicycle ☐
- Walk ☐

**7a. How has your mobility changed due to Covid-19?**

**In the last 3 months, in order to get about do you: (please circle the most appropriate answer)**

| | | | | |
|---|---|---|---|---|
| **Use car** | more than before | less than before | same as before | not driven at all |
| **Use taxis** | more than before | less than before | same as before | not at all |
| **Use public transport** | more than before | less than before | same as before | not at all |
| **Use community organised transport** | more than before | less than before | same as before | not at all |
| **Use Motorbike/ motor scooter** | more than before | less than before | same as before | not at all |
| **Cycle** | more than before | less than before | same as before | not cycled at all |
| **Walk** | more than before | less than before | same as before | not walked at all |

**8. Normally, if you did not drive a car how easy would it be to get around?**

- Very difficult ☐
- Difficult ☐
- Neither difficult nor easy ☐
- Quite easy ☐
- Very easy ☐

**9. Please rate how important driving is to you, on a scale of 1 to 10? Please circle a number below.**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Not at all important** | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | **Extremely important** |

**10. Approximately how many miles did you drive last year?**

_____

**11. In which year did you pass your driving test? (if unsure please give approximate year)**

☐☐☐☐

**12. Have you ever held a professional driving licence (e.g. lorry driver, bus driver, taxi driver?)**

Yes ☐ No ☐

**13. Are you the main driver in your household?**

Yes ☐ No ☐

**14.** Have you received any additional driver training since you passed your driving test?

Yes ☐ No ☐

**If 'Yes' please tick all that apply**

| | |
|---|---|
| Advanced driver training | ☐ |
| Defensive driving course | ☐ |
| Driving instructor training | ☐ |
| Driving refresher course | ☐ |
| Driving course specifically aimed at senior drivers | ☐ |
| IAM RoadSmart Mature Driver Review | ☐ |
| Military driver training | ☐ |
| Minibus driver training | ☐ |
| Police driver training | ☐ |
| Professional driver training HGV | ☐ |
| Professional driver training LGV | ☐ |
| Professional driver training PSV | ☐ |
| Speed awareness course | ☐ |
| Other (please specify) | ☐ |

**15. Approximately how often do you have an eyesight test?**

Every year ☐ Every 2 years ☐ Every 3 years ☐ Every 4 or 5 years ☐ More than 5 years ☐

**16. Do you wear corrective lenses for driving?**

Yes ☐ No ☐

**17. Have been diagnosed with, or treated for, any of the following medical conditions in the last 5 years?**

(please tick all that apply to you)

| | |
|---|---|
| Arthritis | ☐ |
| Alzheimer's disease | ☐ |
| Diabetes | ☐ |
| Epilepsy | ☐ |
| Head injury | ☐ |
| Heart disease | ☐ |
| High blood pressure | ☐ |
| Stroke | ☐ |
| Cataract | ☐ |
| Glaucoma | ☐ |
| Hip or knee replacements | ☐ |
| None of the above | ☐ |

**18. Do you take any medications?**

Yes ☐ No ☐

**18a if yes, has a health professional advised you that your medications may impair your driving?**

Yes ☐ No ☐ Not sure ☐

**19. The Covid-19 situation has affected access to routine healthcare. Due to Covid-19 have you been affected by the situations below?**

| | | |
|---|---|---|
| Missed a routine eye test | Yes ☐ | No ☐ |
| Had a visual problem but unable to get it checked | Yes ☐ | No ☐ |
| Had a medical problem but unable to get it checked | Yes ☐ | No ☐ |

**20. Last year, what were your main reasons for driving?** (tick all that apply)

- Shopping or errands ☐
- Visiting friends or relatives ☐
- Going to meetings or services ☐
- Leisure activities ☐
- Going to appointments ☐
- To /from workplace (paid or voluntary work) ☐
- Giving lifts to other people ☐
- Other ☐ (please specify)

**21. In general, how confident do you feel as a driver on a scale of 1 to 10?** Please circle a number below.

| Not at all confident | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Extremely confident |
|---|---|---|---|---|---|---|---|---|---|---|---|

**22. Last year, how often did you avoid any of the following situations?**

Please circle the answer which best applies to you for each situation.

| | | | | | |
|---|---|---|---|---|---|
| **Driving at night** | Always | Never | Rarely | Sometimes | Often |
| **Driving at peak times** | Always | Never | Rarely | Sometimes | Often |
| **Driving in bad weather** | Always | Never | Rarely | Sometimes | Often |
| **Driving on busy roads** | Always | Never | Rarely | Sometimes | Often |
| **Driving on unfamiliar roads** | Always | Never | Rarely | Sometimes | Often |
| **Driving on motorways** | Always | Never | Rarely | Sometimes | Often |
| **Making right turns** | Always | Never | Rarely | Sometimes | Often |
| **Parallel parking** | Always | Never | Rarely | Sometimes | Often |
| **Driving when alone** | Always | Never | Rarely | Sometimes | Often |
| **Driving at night in the rain** | Always | Never | Rarely | Sometimes | Often |
| **Driving when feeling tired** | Always | Never | Rarely | Sometimes | Often |
| **Driving long distances** | Always | Never | Rarely | Sometimes | Often |
| **Roadworks** | Always | Never | Rarely | Sometimes | Often |

**23.** Please read the statements below then give each a rating of what you feel your level of ability as a driver is (or would be if you were still driving) in general by circling the appropriate answer.

| | | | | | |
|---|---|---|---|---|---|
| Ability to read road signs early enough to give adequate time to act upon them. | Very good | Good | Adequate | Poor | Very poor |
| Ability to judge gaps in traffic (for pulling out of junctions or crossing the road). | Very good | Good | Adequate | Poor | Very poor |
| Ability to notice vehicles, cyclists and pedestrians out of the corner of your eye. | Very good | Good | Adequate | Poor | Very poor |
| Able to see clearly in very low light conditions. | Very good | Good | Adequate | Poor | Very poor |
| Able to see clearly in very bright light conditions. | Very good | Good | Adequate | Poor | Very poor |
| Ability to make decisions quickly (e.g. when to pull out into traffic or when to cross the road through traffic). | Very good | Good | Adequate | Poor | Very poor |
| Ability to react quickly (e.g. braking in an emergency or avoiding unexpected traffic). | Very good | Good | Adequate | Poor | Very poor |
| Ability to follow from memory a route driven/walked only once previously. | Very good | Good | Adequate | Poor | Very poor |
| Ability to stay alert for long periods. | Very good | Good | Adequate | Poor | Very poor |
| Ability to recognise when your attention has wandered from your driving. | Very good | Good | Adequate | Poor | Very poor |
| Ability to judge speed of oncoming traffic. | Very good | Good | Adequate | Poor | Very poor |
| Ability to divide your attention between two different tasks (e.g. talking to someone while driving). | Very good | Good | Adequate | Poor | Very poor |
| Ability to cope with in-car technology in modern vehicles. | Very good | Good | Adequate | Poor | Very poor |

**24.** **Below are some statements about driving. Please circle the answer which applies to you.**

| | | | | | |
|---|---|---|---|---|---|
| **Do you forget where you left your car?** | Never | Hardly ever | sometimes | A lot of the time | Almost all the time |
| **Do you get into the wrong lane when approaching a roundabout or a junction?** | Never | Hardly ever | sometimes | A lot of the time | Almost all the time |
| **Do you misread the signs, exit from a roundabout on wrong road?** | Never | Hardly ever | sometimes | A lot of the time | Almost all the time |
| **Do you switch on one thing, meaning another? (e.g. windscreen wipers instead of indicators)** | Never | Hardly ever | sometimes | A lot of the time | Almost all the time |
| **Hit something when reversing that you had not previously seen?** | Never | Hardly ever | sometimes | A lot of the time | Almost all the time |
| **Realise you have no recollection of the road along which you have just been travelling?** | Never | Hardly ever | sometimes | A lot of the time | Almost all the time |
| **Intending to drive to destination A, you suddenly notice that you are on the road to destination B?** | Never | Hardly ever | sometimes | A lot of the time | Almost all the time |
| **On turning left, nearly hit a cyclist who has come up on your inside?** | Never | Hardly ever | sometimes | A lot of the time | Almost all the time |
| **Fail to see pedestrians crossing?** | Never | Hardly ever | sometimes | A lot of the time | Almost all the time |
| **Underestimate the speed of an oncoming vehicle?** | Never | Hardly ever | sometimes | A lot of the time | Almost all the time |
| **Miss 'Give Way' signs** | Never | Hardly ever | sometimes | A lot of the time | Almost all the time |

**25.** **How do you rate your general ability as a driver on a scale of 1 to 10? Please circle a number below**

| **Poor** | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | **Excellent** |
|---|---|---|---|---|---|---|---|---|---|---|---|

**26.** **How up to date are you with current driving regulations (e.g. the Highway Code, DVLA website)?**

- I checked recently ☐
- Within the last year ☐
- Within the last 2 years ☐
- Within the last 5 years ☐
- In over 5 years ☐
- Not at all ☐

**27.** **In the last 3 years have you been involved in any accidents whilst driving?** Yes ☐ No ☐

**27a)** **if Yes were any of the accidents your fault?** Yes ☐ No ☐

**27b)** **Where did the accident(s) take place? (please tick all that apply)**

- Public road ☐
- Car park, driveway or private road ☐

**27c)** **What sort of accident was this (please tick all that apply)**

- My car hit another vehicle ☐
- My car hit an object (e.g. wall, tree, etc.) ☐
- My car was hit by another vehicle ☐
- Police attended ☐
- Someone was injured ☐

**28.** **We would like your opinion on possible methods of maintaining good levels of safety among an ageing driving population. Please indicate your agreement or disagreement by circling one answer for each statement below.**

| a) drivers should be re-tested every ten years after passing their first test | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

| b) senior drivers should be re-tested every five years after renewing their driving licence | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

| c) all drivers should have to pass an eyesight test every ten years | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

| d) senior drivers should have to pass an eyesight test every five years after renewing their driving licence | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

| e) drivers should be required to undergo a medical examination around age 70 | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

| f) GPs should be required to inform patients if their medical condition may affect their fitness to drive | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

| g) A licensing system should be introduced which can more flexibly limit various aspects of everyone's driving with regard to their health, ability and driving record (E.g. a restricted licence to drive only at night or on local roads) | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

| h) if there was a 'do it yourself' test kit which enabled drivers to test themselves for important basics of driving ability (e.g. vision, mental quickness, etc.) I would use it? | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

| i) the age at which drivers should renew their driving licence should be raised from 70 to 75 | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

## Giving Up Driving

**29. The following groups of people may give advice on giving up driving. Please rank them 1, 2, 3 and 4 in order of how influential their advice would be to you (where 1 is most influential; 2 is second most influential; 3 is third most influential; and 4 is least influential).**

General practitioner/doctor ☐
Optician/optometrist ☐
Family/friends ☐
Police ☐

**30. Current driving status. Which of the following statements applies to you?**

a) I am a current driver and hold a valid driving licence ☐ please go to question 31
b) I am no longer driving but still hold a valid driving licence ☐ please go to question 36
c) I am no longer driving and I do not hold a valid driving licence ☐ please go to question 36

## Current drivers:

**31. For how many years do you expect to keep driving?** _____

**32. Have you ever considered giving up driving?** Yes ☐ No ☐

**33. Has the Covid-19 situation affected your thinking about giving up driving?** Yes ☐ No ☐

If Yes do you feel you are:
more likely to give up driving in the near future ☐
less likely to give up driving in the near future ☐

**34. The following statements relate to circumstances which may cause you to consider giving up driving in the future. Please indicate your agreement by circling one answer**

| **a) I would consider giving up driving if I had difficulty in getting motoring insurance or it became too expensive.** | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

| **b) I would consider giving up driving if the cost of motoring became too high.** | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

| **c) I would consider giving up driving if I had health problems which affect my driving.** | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

| **d) I would consider giving up driving if I was advised not to drive by a health professional.** | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

| **e) I would consider giving up driving if I was involved in a road accident.** | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

| **f) I would consider giving up driving if family or friends urged me to stop driving.** | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

| **g) I would consider giving up driving if public transport was more reliable, flexible and safe** | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

**35.** **Please tick either (a) or (b) below and answer the associated question:**

**a) I am thinking of giving up driving** ☐

If yes, what would be the most important issue involved in your decision to give up driving?

_____

**b) I intend to continue driving for the foreseeable future** ☐

If yes, what do you see as the most important reason you continue to drive?

_____

**Current Drivers: Please go to the end of the questionnaire.**

## Ex drivers

**36.** **At what age did you give up driving?** _____

**37.** **About giving up driving, which of the following statements apply to you?** (please tick one)

I gave up driving at the right time ☐
I feel I gave up driving too early ☐
I feel I left it later than I should to stop driving ☐

**38.** **Had you previously considered giving up driving before you actually did?** Yes ☐ No ☐

if yes how many times? _____

**39.** **Please indicate to what extent you agree with the following statements by circling one answer:**

| **a) Rather than your own decision, circumstances outside of your control made you give up driving.** | | | | |
|---|---|---|---|---|
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |
| **b) It was a series of decisions which led to a gradual reduction in driving until eventually you gave up.** | | | | |
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |
| **c) It was a case of deciding not to start again after an extended period of not driving.** | | | | |
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |
| **d) You felt under pressure from others (e.g. family, friends, health professionals) to give up driving.** | | | | |
| Strongly agree | Slightly agree | Neutral | Slightly disagree | Strongly disagree |

**40.** **What was the main reason for you giving up driving?**

_____

## Thank you for completing this questionnaire. Your answers are very important.

# Appendix II - COVID-19 Timeline for England

| | |
|---|---|
| **FEBRUARY 2020** | |
| 04/02/2020 | China Advice - All UK citizens advised to leave China |
| **MARCH 2020** | |
| 10/03/2020 | Italy Air Travel - Majority of flights to and from Italy suspended |
| 12/03/2020 | 7-day Isolation - 7-day self-isolation for individuals presenting symptoms |
| 16/03/2020 | Social Distancing - Households to self-isolate for 14-days if symptoms present. Work from home where possible. 12-week isolation for elderly and vulnerable |
| 17/03/2020 | UK Foreign Travel 1 - Foreign Secretary advises against all non-essential travel overseas |
| 21/03/2020 | Schools Closed - Schools to remain closed until further notice. |
| 23/03/2020 | UK Lockdown - Guidance provided for essential travel only. All non-essential businesses required to close. Public events banned |
| 23/03/2020 | UK Foreign Travel 2 - Foreign Secretary advises all British travellers to return to UK |
| 28/03/2020 | PM's Letter - Prime Minister issues guidance letter to all UK households |
| **APRIL 2020** | |
| 16/04/2020 | NPCC Guidance - NPCC issues guidance clarifying reasonable excuses for leaving home |
| **MAY 2020** | |
| 10/05/2020 | Those unable to work from home may return to work. Avoid public transport. |
| 11/05/2020 | Relaxation Document - The UK government publishes a 50-page document setting out further details of the phases for lifting the lockdown restrictions. |
| 13/05/2020 | Individuals can undertake unlimited exercise (and can travel to do so). Individuals can meet someone from another household providing it is on a one-to-one basis. |
| 18/05/2020 | Rail operators begin running more train services. |
| **JUNE 2020** | |
| 01/06/2020 | Schools re-open for some pupils. Groups of up to six people from different households allowed to meet outside |
| 15/06/2020 | All non-essential retailers and zoos in England reopened |
| 19/06/2020 | UK's COVID-19 Alert Level is lowered from Level 4 (severe risk) to Level 3 (substantial) risk, general circulation) |
| **24/06/2020** | **CURRENT SURVEY OPENED** |
| **JULY 2020** | |
| 04/07/2020 | Further relaxation of social distancing and reopening of pubs, restaurants, hotels hairdressers on 4th July |
| **10/07/2020** | **SURVEY CLOSED** |
| 25/07/2020 | Gyms and other indoor services reopen in England |
| **AUGUST 2020** | |
| 21/08/2020 | Driving tests are approved to go ahead |
| **SEPTEMBER 2020** | |
| 01/09/2020 | Large number of schools across England re-open for the autumn term. |
| 08/09/2020 | All schools across England have re-opened |
| 14/09/2020 | Rule of six comes into effect to tackle coronavirus, more than six is against the law |
| **OCTOBER 2020** | |
| 14/10/2020 | Tiered level restrictions were implemented across different local areas in England. Liverpool placed on highest alert (Tier 3). |

| | |
|---|---|
| **NOVEMBER 2020** | |
| 05/11/2020 | England goes into second National Lockdown |
| **DECEMBER 2020** | |
| 02/12/2020 | Second national lockdown in England ends, three-tiered local restriction system implemented. |
| 20/12/2020 | London and South East England enter Tier 4 restrictions. |
| **JANUARY 2021** | |
| 05/01/2021 | Third national lockdown in England commences |
| **FEB. 2021** | |
| 01/02/2021 | Lockdown continues |
| **MARCH 2021** | |
| 01/03/2021 | Lockdown continues |

# Appendix III - Occupation Categories coded to SOC2010 V.31 (ONS, 2020)

| Major Group | Sub-Major Group | Group Title |
|---|---|---|
| **1** | | **Managers, directors and senior officials** |
| | 11 | Corporate managers and directors |
| | 12 | Other managers and proprietors |
| **2** | | **Professional occupations** |
| | 21 | Science, research, engineering and technology professionals |
| | 22 | Health professionals |
| | 23 | Teaching and educational professionals |
| | 24 | Business, media and public service professionals |
| **3** | | **Associate professional and technical occupations** |
| | 31 | Science, engineering and technology associate professionals |
| | 32 | Health and social care associate professionals |
| | 33 | Protective service occupations |
| | 34 | Culture, media and sports occupations |
| | 35 | Business and public service associate professionals |
| **4** | | **Administrative and secretarial occupations** |
| | 41 | Administrative occupations |
| | 42 | Secretarial and related occupations |
| **5** | | **Skilled trades occupations** |
| | 51 | Skilled agricultural and related trades |
| | 52 | Skilled metal, electrical and electronic trades |
| | 53 | Skilled construction and building trades |
| | 54 | Textiles, printing and other skilled trades |
| **6** | | **Caring, leisure and other service occupations** |
| | 61 | Caring personal service occupations |
| | 62 | Leisure, travel and related personal service |
| **7** | | **Sales and customer service occupations** |
| | 71 | Sales occupations |
| | 72 | Customer service occupations |
| **8** | | **Process, plant and machine operatives** |
| | 81 | Process, plant and machine operatives |
| | 82 | Transport and mobile machine drivers and operatives |
| **9** | | **Elementary occupations** |
| | 91 | Elementary trades and related occupations |
| | 92 | Elementary administration and service occupations |

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