

TRANSPORT FOR LONDON

RESPONSE

Date: 19 March 2021

1 Purpose

- 1.1 This briefing outlines TfL's response to the UCL Phase 2 Assessment of London Bus Driver Mortality from COVID-19 Report.

2 Introduction

- 2.1 The COVID-19 pandemic spread to the United Kingdom in late January 2020. By mid-March, there were 43 deaths recorded as being due to COVID-19, of which 23 were in London. London was at the heart of the pandemic during the first wave and was hit hard. At the very outset of the pandemic, all the measures which we now take for granted were not yet in place and knowledge about the mechanism of the spread of the virus was limited.
- 2.2 The prompt and clear reporting of COVID-19 absences and the subsequent tragic deaths amongst London's bus staff highlighted to us a number of questions (amongst wider public speculation at the time) regarding which groups of people could be at higher risk and why. Therefore we moved quickly, and in May 2020 we commissioned UCL Institute of Health Equity to study the pattern of infection and deaths from COVID-19 in bus drivers. This reflected our concerns about the impact of the pandemic on bus workers and their potential exposure to the virus because of the nature of the jobs that they do. We wanted to ensure that we were doing everything possible to protect them. This research has been undertaken in two phases, with the first phase report being published in July 2020. A key finding from the UCL research is that 80 per cent of those drivers who died had ceased work by 3 April 2020. Infection would have been contracted pre-lockdown and researchers have concluded that an earlier lockdown would have saved lives of London bus drivers.
- 2.3 London bus services are operated under contract to TfL, and the Bus Operators are legally responsible for the safety and wellbeing of their staff. Alongside this TfL has a key role as the contracting authority to ensure that the operators do their utmost to promote best practice in performance, especially for safety. We carry out this activity through regular dialogue and collaborative working during the life of the contracts. We also have the ability to require specific outcomes and performance through our contractual relationships, and can adapt the specifications to drive change - for example the world-leading Bus Safety Standard and our path to a zero emission fleet.



- 2.3 TfL responded quickly to the pandemic and can be considered a world-leader in terms of interventions and research. To help ensure we are keeping our people and customers safe, since September 2020 we have been working with Imperial College London (ICL) to test air and surfaces on our network for the presence of COVID-19. Since the start of this testing, no coronavirus – including variants – has been found in the air or on any of the surfaces tested. We have also worked with UCL’s Centre for Transport Studies (CTS) and Department of Civil, Environmental and Geomatic Engineering (CEGE) to look at the drivers’ cabs on buses, to understand the movement of air and implement much safer screens and ventilation systems.
- 2.4 We have continued to work with UCL’s CTS and CECE on the bus saloon, and based on their latest evidence on the benefits of improved fresh air and air movement within the saloon we have started to introduce ‘window blocks’ on the ‘pull open’ windows across the fleet to improve the airflow. These blocks prevent the windows from fully closing at any time, yet prevent rain from blowing in, and will be rolled out by mid May 2021.
- 2.5 TfL’s strong existing collaborative relationships with the ten bus operators has enabled us to quickly and effectively address the unprecedented challenges COVID-19 has presented at each stage. Each of the companies has responded to new and changing evidence and guidance with constructive mitigations and actions, alongside TfL’s strategic coordinating role which has ensured bus operators were doing everything possible in terms of their responsibilities as employers.
- 2.6 The rest of country has been learning from us – we were hit first, and shared our learnings and experiences with the UK bus industry, enabling operators elsewhere also to implement some of the measures we have introduced. We have continued to play a leading role in shaping the response to COVID-19 nationally over the last year as the situation has evolved.

3 Background

- 3.1 In May 2020, we commissioned UCL Institute of Health Equity to study the pattern of infection and deaths from COVID-19 in the London bus worker population due to the tragic loss of a number of bus worker colleagues, predominantly drivers.
- 3.2 The study examined the deaths of 27 bus drivers in the period March to May 2020. The findings of the first phase were published in July 2020. The recommendations from this phase have either been undertaken or are ongoing, and TfL’s response can be viewed here: <https://tfl.gov.uk/info-for/media/press-releases/2020/july/tfl-responds-to-ucl-s-institute-of-health-equity-review-on-bus-driver-deaths-during-the-pandemic>.
- 3.3 In response to the Phase I research and recommendations, we implemented a number of measures. On 20th March 2020 we wrote to bus operators setting out the first of many London wide changes – ensuring that all drivers receive sick pay from day one. We have subsequently provided clear direction to bus operators to ensure contingency plans to protect vulnerable drivers are deployed consistently as the evidence and Public Health England (PHE) guidance has changed.



- 3.4 We have worked closely with bus operators and trade unions to standardise relevant processes and procedures across bus operators. Recommended equipment is in place for all employees, for example hand sanitiser and cleaning wipes, and there is a continued focus on enhanced cleaning of driver facilities and depots (both frequent touch point cleaning and 28 day Zoono anti-viral application). Since July 2020 all driver cabs have been secured based on the UCL CTS and CEGE report into bus drivers' cabs design and ventilation systems improved where needed. The UCL cab report showed that this significantly reduced the risk of COVID-19 transferring from the passenger saloon into the cab to practically zero.
- 3.5 We also introduced a new COVID-19 Age Risk Assessment, enabling all employees to easily work out their 'COVID-19 age'. The purpose of this assessment is to determine whether further assessment by Occupational Health is advised and it has helped to identify a number of people at higher risk who may not have otherwise come forward, and also helped confirm that some other people could safely return to work. We have worked with the bus operators to ensure they are consistently using our own, or an equivalent, COVID-19 risk assessment process to ensure more vulnerable drivers are identified and offered appropriate adjustments, such as putting them on furlough to reduce their risk of exposure.
- 3.6 As the categorisations of risk changed in early 2021, more drivers have been taken out of the workplace, and this mechanism remains in place should the risk profile change again. Bus operators are proactively encouraging drivers to disclose any underlying health conditions through a combination of social media and posters.
- 3.7 The aim of this Phase 2 report was to understand the pattern of infection in bus workers to inform recommendations on any additional occupational health measures that should be put in place to protect this key worker population. In October and November 2020 all London bus drivers were invited to complete a survey which examined in more detail their non-occupational and occupational risk factors for COVID-19, their response to the measures taken by bus operators to reduce their risk and how they felt about the position in March and April 2020. In addition, UCL sought information from bus operators on the demographics of all London bus drivers.

4 Phase Two Research Findings

- 4.1 The Phase 2 report has now been published and includes a number of key findings. It has confirmed the Phase 1 finding that there was a statistically significant excess in mortality, compared to the general population in the same geographical area, amongst bus drivers from COVID-19 during the period of March to May 2020.

Many of these deaths were likely to have been as a result of infection acquired before the first national lockdown on 23 March 2020. A recent Office for National Statistics (ONS) research paper showed amongst men, most BAME groups had significantly higher mortality than white groups if infection was likely to have been acquired before lockdown. ONS also indicate that some groups of occupations continued to have higher rates of death involving COVID-19 during this time period – they conclude that factors like the level of exposure to others, ability to work from home and where someone lives could all play a role. These factors would all impact London bus drivers.



4.2 This latest research has also helped us understand more fully the rate of death for London bus drivers and the comparison of this with other areas and wider populations. For example:

- UCL has calculated that the prevalence of COVID-19 mortality in London bus drivers under the age of 65 was 68 per 100,000 in March to May 2020. This is a way of translating the actual numbers of deaths to a representative number per 100,000 to allow comparison with other occupations.
- ONS prevalence of COVID-19 mortality for bus and coach drivers between 9 March and 25 May 2020 for ages 20 - 64 was 44 per 100,000 males in England and Wales (including London). This shows that if there were 100,000 bus and coach drivers of this age group nationally, then 44 would have died. This is less than the figure for London bus drivers, but it is important to remember that many coach drivers were not working for much of this period and would have had lower exposures. Furthermore London was impacted more by the first wave of the pandemic with higher rates across the city than most other parts of the country.
- London bus drivers were three times more likely to die from COVID-19 during the period March to May than the general England population. This is a ratio comparing the number of London bus drivers who died between March and May and the numbers in the general population during this same time frame. It is important to note that prevalence of COVID-19 was significantly higher in London than the national average during this time period, which partly accounts for this higher mortality rate among bus drivers in London. This was also at a time that, nationally, we were only just beginning to understand the serious implications of COVID-19, which increased the extent to which areas where prevalence was high early were hit harder in terms of mortality rates.
- When mortality ratios are considered in terms of London regional data, the ratio decreases and London bus drivers were identified as two times more likely to die when other known risk factors are taken into account for example their ethnicity, age and where they lived.

4.3 The most up to date ONS data for COVID-19 related deaths in England by occupation looks at deaths between March 9 and December 28, 2020 and relates specifically to male bus and coach drivers aged between 20 and 64. In this period 83 male bus and coach drivers died giving a rate of 70.3 deaths per 100,000 males. During this time period 34 London bus drivers died; note that 8 of these drivers were over the age of 64 meaning that 26 of these deaths are directly comparable to the ONS data. The fact that London bus drivers make up roughly one third of the total number should not be seen as surprising given that a large proportion of UK bus drivers work in London and in the first wave the prevalence of COVID-19 in London was higher than elsewhere; and given our drivers have many of the risk factors for COVID-19. ONS have published data looking at occupational mortality between March and December 2020.



- 4.4 It can be seen that bus and coach drivers in England and Wales had the 16th highest male mortality rate by occupation between March to May, but the 25th highest for the period March to December. This shows how the relative risks (in comparison with other occupations) for drivers nationally reduced as the lockdown period went on. The report suggests that, for infections contracted between mid-May and the end of December, deaths of London bus drivers, as a proportion of those in the regions in which they live, have fallen by around 45 percent compared to March to May.
- 4.5 Phase 2 also found bus drivers were more likely to live in the second most deprived neighbourhood decile, with marked differences in the extent of residential deprivation between the sexes and ethnic groups. Female drivers were more likely than their male colleagues to live in the two most deprived neighbourhoods, and white drivers were less likely than drivers of any other ethnic group to live in the three most deprived neighbourhoods in London.
- 4.6 The study also found bus drivers suffer from the same rates of pre-existing conditions as the general population, however there is some evidence of earlier onset of some conditions. Drivers were more likely to be obese at a younger age than the general population.
- 4.7 A further finding was an increased death rate for drivers who lived in areas with higher general COVID-19 infection levels compared to drivers living in areas of lower infection levels.
- 4.8 Drivers who had tested positive for COVID-19 or reported symptoms consistent with the infection were asked if they continued to have lasting symptoms. Among those reporting continuing symptoms, 40 percent had continued to experience tiredness and 22 percent had continued to experience breathing difficulties. However, given survey limitations we cannot be certain that these symptoms are solely due to COVID-19.
- 4.9 Other relevant studies include the PCR self-swab element of the REal-time Assessment of Community Transmission Study (REACT-1) which estimates community prevalence of SARS-CoV-2 infection in England based on random cross-sections of the population ages five and over. Their round 9 report for February 2021 showed the odds ratios for public transport workers testing positive for COVID (adjusted for gender, age group, region, ethnicity and deprivation index) was 2.14 times higher than other workers, highlighting the need for ongoing vigilance and reinforcement of measures to reduce risk of infection.

5 Phase 2 Recommendations from UCL and TfL's Response

Recommendation 1

- 5.1 All bus drivers and particularly those with identified risk factors need continued protection by reducing exposure to COVID-19 as long as it persists in the community. Social distancing and mask wearing must continue to be observed consistently in all locations where bus drivers are out of their cabs including transfers, depots and canteens. Promotion and enforcement of compliance of these measures by all, to ensure consistent adherence, remains a priority, as it does for all passengers when travelling on public transport.



TfL Response

- 5.2 TfL and the bus operators have consistently sought to enhance our response to the pandemic and to reduce risk to staff. TfL works closely with the bus operators to ensure a joined-up approach is being taken and that suitable controls are being implemented to keep staff and passengers safe.
- 5.3 This includes implementing a series of additional and innovative measures including enhanced cleaning of buildings and vehicles, changes to enable social distancing, ready access to hand sanitiser, cleaning wipes and face coverings. Alongside this, the operators have and will ensure that all risk assessments reflect the latest understanding of managing COVID-19 risk and that vulnerable drivers are identified and offered protection, such as furlough for the Clinically Extremely Vulnerable.
- 5.4 We continue to hold regular sessions with the bus operators to assure ourselves of these arrangements, understand how sickness and confirmed infection cases are affecting their people and operations, and understand the actions being taken to safeguard network staff. Managers and stood-down Union representatives check that cleaning has been carried out as specified, and ensure staff follow the processes laid out to protect everyone working at the garages. TfL has continued to engage with the safety and risk managers at the bus operators throughout the pandemic. The intention is for TfL to resume visits again from 29 March as lockdown arrangements ease.
- 5.5 COVID-19 has impacted the availability and capacity of existing driver welfare facilities, including depots and canteens. Early on in the pandemic, we rapidly responded to address this by providing temporary toilets and expediting plans to provide more mess room capacity to allow for social distancing. This work includes changes to layouts at mess rooms to provide additional capacity and enable social distancing. We have also provided new temporary mess room facilities to provide further additional capacity to enable social distancing. A total of 40 different locations will have been improved by the end of March 2021.
- 5.6 The bus operators have used a range of tools to promote compliance, including internal social media, posters and notices as well as the stood-down Union representatives to provide peer-to-peer engagement.
- 5.7 We horizon scan for new and innovative measures to improve safety for staff, and we will work with bus operators to strengthen the messaging around social distancing and mask wearing to maintain focus and ensure compliance, to reduce the risk of complacency.

Recommendation 2

- 5.8 In the longer term, early interventions on ill-health prevention are needed to reduce obesity in the population as a whole, with responsible employers playing their part. In particular, measures are needed among younger London bus drivers who have higher obesity rates than other young people of the same age.

TfL Response



- 5.9 Improving staff health and well-being is a key priority and we set our expectation of high standards here with our bus operators. While achieving this recommendation will form part of a wider public health agenda, we take a proactive approach continuing to follow rigorously national guidance and PHE advice to identify and implement measures that can further support ill-health prevention.
- 5.10 One element currently being explored by TfL with the bus operators is improved driver health assessments. Introducing more frequent and potentially more rigorous health assessments for drivers could help detect potentially serious health conditions earlier such as hypertension, diabetes, and heart disease, and enable bus operators to assist drivers in getting the help they need, building on the open culture work of the fatigue management programme.
- 5.11 Work is underway with the bus operators to scope a programme of work where TfL can support the bus operators in making best use of shared resources and trial new initiatives, noting that effective health programmes will take time to set up. We will update our Safety, Sustainability and HR panel (SSHRP) on progress later this year.
- 5.12 Operators have also been proactively trialling their own initiatives with their employees. For example, Stagecoach has a 'Eight-Week Checklist to Fitness' where each week there is a different topic and employees are provided with advice and links to information and further help if required. Go Ahead London have been trialling 'The POD' at its Orpington garage to improve mental health. This is a traffic light system that employees can select as they enter the garage to start their duty. The outcomes of these initiatives and many others implemented by operators are shared across the London industry.
- 5.13 Whilst we are at the forefront of much of this work, we will continue to look beyond London, and benchmark with other industries looking at successes, delivery approaches and measuring benefits of increased health awareness.

Recommendation 3

- 5.14 Fatigue is a pre-existing issue for some bus drivers, with some evidence that COVID-19 infection and lockdown has exacerbated this. Action, already being taken following previous research into factors contributing to tiredness, should be enhanced to address any new issues arising from the pandemic, following a short-term review of shift lengths, patterns and rotas.

TfL Response

- 5.15 We recognise that a wide range of factors contribute towards bus driver fatigue, as described in the original groundbreaking Loughborough study. This research highlights the ongoing importance of this work and the actions arising from the Loughborough study. Work on fatigue has been slowed by resource constraints during the pandemic, but we now have a clear roadmap for the months ahead and it will continue to be a priority for delivery throughout the coming year.



- 5.16 All bus operators are now required to have robust fatigue management systems in place in order to be able to apply for contracts with TfL. In light of this recommendation, the bus operators now build further on their comprehensive fatigue risk management systems, including measuring fatigue more widely and reviewing shift patterns and rotas in collaboration with the trade unions to identify where improvements can be made. This work will be on an ongoing basis with periodic reviews undertaken with the operators.
- 5.17 We have recently launched the £500,000 Fatigue Innovation Fund. This fund, which bus operators can bid for, is intended to trial innovative solutions to change the safety culture within bus garages and increase driver health and well-being. However, in light of the findings from this UCL report, the fund will now be broadened to include innovation that could also improve health and wellbeing of bus drivers, as well as fatigue.
- 5.18 We are also working with bus operators to roll out bus driver fatigue management awareness training which aims to raise awareness of the basics of fatigue, how it is caused and what drivers can do to help alleviate it. We started training bus operator managers and supervisors in September 2020 and around 1,000 have completed training so far out of circa 2,200, with the aim that training will be completed for all employees by summer 2021.

Recommendation 4

- 5.19 Drivers who have clinically verified ongoing symptoms of COVID-19 infection [“long COVID”] will continue to need financial, psychological and clinical support from the bus companies and the NHS, as will need to be the case for all those working for responsible employers.

TfL Response

- 5.20 The long term impacts of COVID-19 on some people are becoming sadly apparent, but there is still much to learn about this subject. We recognise that bus operators as responsible employers have a key role to play in ensuring that employees suffering ongoing symptoms are provided with the right support, and to enable as many as possible back into work as possible when it is safe for them to do so. We will actively support the Government response in support of these people.
- 5.21 Those with ongoing symptoms are continuing to be supported by their employer. In light of this recommendation and the emerging facts on long term symptoms, the operators will review their existing range of employee assistance / support programmes and how they could be enhanced to reflect the ongoing impacts of long COVID. We will continue to discuss this with operators and ensure that they are making appropriate support available to drivers.

Recommendation 5



5.22 Some bus drivers report several factors that have increased the demands on them despite reduced passenger and traffic numbers, for example passenger aggression and non-compliance and some new traffic measures. In anticipation of increased passenger and traffic numbers, TfL should support drivers in the short term through both ensuring communication of guidance to the public is clear on measures in force and those that change at any point in time, accompanied by enforcement action to support drivers.

TfL Response

5.23 We take workplace violence and aggression very seriously and our bus drivers have the right to work without fear of being assaulted, abused or threatened. We have developed a pan-TfL strategy to tackle work-related violence and aggression which covers bus drivers. The strategy includes measures to prevent incidents by tackling the triggers to work-related violence and aggression, encouraging and making it easier to report incidents, taking robust action against offenders and enhancing the support provided to bus drivers when an incident does occur.

5.24 Over the past year, we recognised that the level of offences against bus drivers did not reduce in line with passengers. We worked with the police to prioritise the investigation of offences, using all evidential opportunities including CCTV, Oyster card data and DNA spit kits to quickly identify and charge suspects and bring them in front of the courts as quickly as possible. As a result, a number of strong sentences were given to offenders.

5.25 When lockdown and restrictions ease over the coming months, we will resume our garage roadshows and engagement sessions with drivers to understand and respond to concerns about crime, antisocial behaviour and enforcement.

5.26 We recognise that drivers have faced a range of challenges during lockdown and will continue to do so once lockdown is eased and more people return to our services. We are enormously grateful to them for their hard work during this difficult period.

5.27 To support staff and customers and ensure the safe use of the network, we:

- have a highly visible presence on the transport network, including over 500 TfL enforcement officers and over 2,500 police and community support officers in the MPS Roads and Transport Policing Command and the British Transport Police. These officers are deployed to priority areas across the network and to provide customer reassurance, to prevent crime and anti-social behaviour, and to support COVID-safe measures with a focus on the mandatory wearing of face coverings on public transport;
- have increased the presence of TfL-funded MPS Safer Transport Team officers at anticipated busy times to deter crime, anti-social behaviour and non-compliance. For example, we've deployed MPS officers, along with TfL enforcement officers, in support of the afternoon peaks for school return. Children who are found not complying with face covering regulations are reported and risk losing their free travel concession;



- will be ramping up our uniformed presence across the bus network in line with the easing of lockdown and return to ticket checking alongside face covering enforcement;
- have issued clear communication to customers on the measures in force including face covering compliance and social distancing. This includes targeted communications on social media to improve compliance among young customers;
- play automated messages about the requirements to wear face coverings on public transport, making passengers aware that police and TfL enforcement officers patrol the network to enforce; and
- have made it easier for drivers to report issues of face covering non-compliance and social distancing through SMS functionality on their buses. These reports are analysed and inform the deployments of police and TfL enforcement officers.

5.28 TfL officers have stopped 142,473 travellers to ensure the wearing of face coverings and safer travel on the network and issued 2,461 Fixed Penalty Notices between 4 July 2020 and 10 March 2021. Hundreds of people have been prosecuted with average fines of £660 being imposed by the courts. The MPS Roads and Transport Policing Command has stopped a further 63,720 people from travelling and issued 731 Fixed Penalty Notices.

5.29 We will continue to review the impact of the new road schemes introduced to improve social distancing and have already made a number of changes. Bus reliability data indicate that journey times and reliability were overall not impacted although there may have been some more localised experiences of congestion.

Recommendation 6

5.30 Monitoring the health of London bus drivers is a priority following the ongoing presence of COVID-19 infection in the community. As well as the measures described above for other identified at-risk groups, more complete and consistent recording of the ethnicity of bus drivers is required. We recommend that in the coming months, bus operators ensure more complete recording of ethnicity. To ensure consistency across operators and with other organisations, TfL should issue similar guidance on harmonised ethnic recording to that currently being implemented across the NHS, based on the March 2021 Census ethnic classification.

TfL Response

5.31 We agree that the recording of employees' ethnicity should be improved, and we will work with the bus operators to ensure that this is delivered quickly and consistently, and updated to the latest classifications published in 2020.

5.32 We have already asked the operators to introduce the ONS census ethnicity categories for their reporting. Within 3 months we expect the operators to consistently use these revised categories for all new starters, and to then update the records for existing staff as quickly as possible.



Recommendation 7

- 5.33 Breathing problems appear to be a pre-existing issue reported by many London bus drivers, exacerbated in those self-reporting COVID-19 symptoms. In the longer term, air quality on London roads, to which bus drivers have particularly high levels of exposure, needs to be a priority for the Government and Mayor.

TfL Response

- 5.34 London has a clear plan in place to address air quality. The ULEZ came into force in central London (where many bus services operate) in April 2019, the Low Emission Zone standards were tightened on 1 March 2021 and from 25 October 2021, the existing central London Ultra Low Emission Zone will expand up to the North Circular Road and South Circular Road, creating a much larger zone that will help improve air quality for millions of Londoners. All of London's c 9,000 buses now perform to the required Euro VI standard and there are 455 zero emission buses collectively making a significant reduction in overall air pollution.
- 5.35 Since 2018 only zero emission capable taxis have been able to be licenced for the first time. Combined with tighter age limits and delicensing funding to help remove the oldest polluting taxis, there are now nearly 4,000 zero emission capable taxis on London's streets. TfL has also delivered over 300 rapid charge points to accelerate the switch of other vehicles to zero emission.

We agree that Government needs to ensure that tackling poor air quality is a priority, for example through the new Environment Bill to include legally binding WHO recommended limits to be achieved by 2030, and to give cities the powers and funding we need to eradicate air pollution.

6 Next Steps

- 6.1 Having shared the recommendations with the bus operators, we are now working with them to ensure that the actions identified as a result of the UCL recommendations are put in place as soon and as robustly as possible.
- 6.2 As this report has confirmed many of the Phase I findings, and in line with existing priorities we have already made good progress on Recommendations One, Three (as a result of our existing response to the Loughborough report), Five and Seven.
- 6.3 Other actions, such as improving health assessments, understanding and continued support of those with long COVID and updating reporting of ethnicity will require collaborative working to implement them in partnership with the operators and trade unions.
- 6.4 We continue to meet operators weekly to ensure that consistent progress on both the short and medium term actions continues.
- 6.5 As before, we will continue to learn from research and advice from PHE, central Government and other academic institutions, and adapt our plans accordingly.



- 6.6 In terms of monitoring progress, we will provide periodic updates to SSHRP on issues relating to bus driver safety, health and welfare. This will include status updates for the implementation of the actions identified here.

7 Conclusion

- 7.1 All at TfL and its associated bus companies have been devastated by the loss of bus drivers to COVID-19 during the pandemic. This research helps us understand many of the factors involved in this tragedy and to ensure we learn lessons and share them with others to ensure that action can be swiftly taken where needed.
- 7.2 The research provides evidence which suggests that death rates of London bus drivers at ages 20 to 64 in March to May 2020 was greater than rates for all bus and coach drivers in England and Wales of the same age in that period. For the period June 2020 to January 2021, we have seen a smaller proportion of London bus driver deaths compared to bus and coach drivers in England and Wales as a whole and it is therefore unlikely that these are statistically greater than what would be expected on the basis of regional and ethnic death rates.
- 7.3 In conclusion, London was hit hard and hit first in this pandemic and the resulting learnings about the importance of lockdown and risk mitigation measures has been crucial in helping us manage the pandemic and to share these learnings with others. The innovation and application of a wide range of cleaning and protective measures pioneered in London, alongside national initiatives such as the Government's advice on shielding, have been important across the country in reducing risk to bus drivers.

