Future of transport: rural strategy

RoSPA's response to the Department for Transport's call for evidence

February 2021

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Introduction

This is the response of The Royal Society for the Prevention of Accidents (RoSPA) to the Department for Transport's Future of transport: rural strategy call for evidence. It has been produced following consultation with RoSPA's National Road Safety Committee.

Following the publication of the Future of mobility: urban strategy, in March 2019, the Department for Transport are seeking views and evidence on what could be incorporated into a Future of Transport: rural strategy. The consultation explores the Department's assessment of the mobility trends in rural areas, and the emerging opportunities for rural environments that are being witnessed in transport innovation. It also considers of the approach that the government could take to help shape these opportunities to benefit rural areas

Response to Department for Transport's call for evidence: Future of transport: rural strategy

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Are you responding as an individual, or on behalf of an organisation?

On behalf of an organisation.

Which category best describes your organisation?

Charity or other non-government organisation.

Issues facing rural areas

Rural areas face a range of mobility concerns which can lead to social and economic issues. These include:

- Dependence on the private car
- Access to vital services
- Access to employment
- Social isolation

What are your views on dependence on the private car, access to key services, access to employment and social isolation?

RoSPA response

Dependence on the private car

The National Travel Survey[1] provides evidence on the dependence on the private car in rural areas. People living in the most rural areas rely more on private cars, which accounted for 76% of all their trips. In comparison, 52% of trips by residents of urban conurbations were made by private car.

One of the reasons for dependence on the private car could be that there is often a poorer public transport network in rural areas than in urban areas. RoSPA is concerned that as public transport evolves, rural areas could be left behind if operators and innovators believe that services may not be commercially viable over the long term. Without access to a private car, residents risk being cut off from accessing key services.

Rural areas also often lack high quality walking and cycling infrastructure, which could be deterring residents in rural areas from walking and cycling, meaning that residents depend on their car, even for shorter journeys.

People may use their car rather than walking because rural roads are narrow and often have no pavement or crossing facilities along with no or inadequate street lighting. Child pedestrian casualties in rural areas are more likely to occur when children are walking along the road rather than crossing it. Per billion vehicle miles, motor vehicles on minor roads create more pedestrian casualties than motor vehicles on major roads.

People may also opt to use their car rather than cycling, due to the perceived levels of safety of rural roads. In 2019, 60 cyclists were killed on rural roads, compared to 40 on urban roads. In 2018, cyclists travelled 3.3 billion miles on the road. Of these miles, 74% were travelled on urban roads, compared to only 26% on rural roads.

[1] Department for Transport (2020) 'National Travel Survey: 2019'
https://www.gov.uk/government/statistics/national-travel-survey-2019
Date accessed: 18/01/2020.

Many more miles are travelled on urban roads showing that cyclists are much more likely to be involved in a fatal accident on a rural road.

This is probably due to the nature of rural roads, which have more bends than their urban counterparts and have fewer cycle facilities to keep the cyclists out of the flow of traffic, especially in areas where a cyclist is at higher risk such as bends and junctions. There is certainly a link between the speed at which a car travels and the severity of an accident; this is particularly relevant in a rural environment where the national speed limit applies over a wide area and also when speeds and speed limits change dramatically when passing through villages. More must be done to make the road environment in rural areas safer for cyclists and pedestrians.

The autumn clock change may also make walking and cycling less appealing to residents in rural areas, particularly in areas that lack cycling and walking infrastructure. Every autumn when the clocks go back and sunset suddenly occurs earlier in the day, there are a host of negative impacts on the way we live our lives. The number of road casualties rises, with the effects being worse for the most vulnerable road users like children, older people, cyclists and motorcyclists.

Recent research by the RAC Foundation confirms that road traffic collisions increase by 19 per cent in the fortnight after putting the clocks back one hour from British Summer Time (BST) to Greenwich Mean Time (GMT), and they reduce by 11 per cent when we put the clocks forward onto BST. Our social activities are given a curfew, and this is particularly true for older generations. Although we have more light in the mornings, this occurs when many of us are either still in bed, or indoors getting ready for work or school. That means that we have less usable daylight in the evenings to do the things we enjoy in the outdoors or in social environments.

This has an impact on hospitality and leisure businesses such as pubs, museums, restaurants, and on the tourism industry more generally, which will be exacerbated given the economic repercussions of the COVID-19 pandemic.

The darkness curfew also means that our health and wellbeing can be impacted significantly, leading to conditions such as seasonal affective disorder (SAD), and people who are nervous about being out and about when it's dark can become more socially isolated. As we are spending more of our evenings in the dark, our energy and fuel costs increase.

RoSPA has campaigned against the unnecessary clock change for many years, and is calling on the Government to instead keep British Summer Time all year round.

This will mean that we avoid the sudden spike in pedestrian casualties, and that we will all be able to enjoy more usable, evening daylight for more of the year, spending time and money doing the things we love. This is particularly important as the UK seeks to recover from the COVID-19 pandemic, to aid the economy and job market within sectors such as hospitality and leisure. It would also help to tackle the loneliness and depression that many are feeling due to lockdown and other restrictions, as there will be more daylight during waking hours, thus helping us to socialise – in line with current coronavirus measures - more easily.

More than half of people want to scrap the clock change and given the choice, 59 per cent of British people would prefer British Summer Time all year according to a YouGov survey in 2019. The same survey also revealed that less than half of people want to keep the clock change, while two in five people actively want to see it scrapped.

Access to vital services and employment

In some rural areas, infrequent public transport can make it particularly difficult for residents to access vital services, such as medical centres, even when travelling short distances. This can lead to particular difficulties for the elderly or less mobile in accessing health services, and limit opportunities for young people to become socially mobile.

Less than half (49%) of households living in small rural settlements (which are villages and hamlets) had access to a regular and nearby bus service in 2012[2].

Those living in rural areas also have to travel further than their urban counterparts.

Average number of trips and total distance travelled per person per year, time spent travelling and average trip length in 2018/2019, in England[3]

	Trips per person	Distance travelled per person (miles)	Travelling time per person (hours)	Trip length (miles)
Urban conurbation	**894**	**5,037**	**366**	**5.6**
Urban city and town	**1,013**	**6,772**	**368**	**6.7**
Rural town and fringe	**1,023**	**8,596**	**401**	**8.4**
Rural village, hamlet and isolated dwelling	**1,030**	**9,756**	**404**	**9.5**
All areas	**969**	**6,515**	**373**	**6.7**

[2] Department for Transport cited in Rural England (2019) 'State of Rural Services 2018' https://ruralengland.org/wp-content/uploads/2019/02/SORS2018-Report-Hi-Res.pdf

[3] Department for Transport (2020) 'National Travel Survey: England 2019' https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/906276/national-travel-survey-2019.pdf

As can be seen in the table above, the average number of trips in rural areas is 6 per cent higher and travelling time per person in rural areas is only 8 per cent higher than the national averages. However the average total distances travelled are much higher for people living in rural town and fringe areas (25 per cent higher) and in rural villages, hamlets and isolated dwellings (41 per cent higher).

According to the National Travel Survey[4], in 2018/19 those living in rural areas travelled more miles for all purposes than those in urban areas. In almost all categories, those living in rural villages, hamlets and isolated dwellings travelled farther than those living in other settlements types. For all purposes, those living in urban conurbations travelled the fewest miles compared with those living in other settlement types. For the purposes of 'business', 'escort', 'shopping', 'personal business' and 'sport/entertainment' those living in rural villages, hamlets and isolated dwellings travelled more than twice the distance each year when compared to those living in urban conurbations.

Limited transport options can also lead to difficulties accessing workplaces and earnings are on average lower in rural workplaces. In 2018, median workplace-based earnings in predominantly urban areas (excluding London) were £23,300 while predominantly rural were lower at £21,900[5].

Social isolation

A lack of transport options for those without access to a private car can increase social isolation, which in turn lead to loneliness and a decline in health and wellbeing, and for elderly residents in particular, poor health, loss of independence and a low quality of life.

Whilst there appears to be little research about geographical isolation and the prevalence of loneliness and social isolation it would seem logical to suggest that the opportunities for social interaction are likely to be more limited in more isolated and remote residential locations. The services available in small rural communities are often extremely limited[6]. The absence of shops, Post Offices and pubs in many hamlets and small villages limits opportunities for interactions between older people within their own communities and the lack of public transport is an obstacle to them meeting elsewhere.

Older people living in small rural communities without access to their own transport often have more limited opportunities to socialise locally than do urban residents, so the availability of public transport is vital. However, residents in smaller rural communities are the least likely to enjoy a convenient bus service.

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[4] [4] Department for Transport (2020) 'National Travel Survey: England 2019' https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/906276/national-travel-survey-2019.pdf

[5] Department for Environment, Food and Rural Affairs (2019) 'Statistical digest of rural England' https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/782147/02_Statistical_Digest_of_Rural_England_2019_February_edition.pdf

[6] Rural England (2016) 'Older people in rural areas: Vulnerability due to loneliness and isolation' https://ruralengland.org/wp-content/uploads/2016/04/Final-report-Loneliness-and-Isolation.pdf

The inflexibility of the services available is also an issue. For example when it is necessary to arrive at a destination on a particular day at a fixed time (e.g. to go to the cinema or attend a social group meeting) travelling by public transport from rural areas will often involve long periods of waiting or be completely impossible.

Do you think there are other issues facing rural areas that we should consider in the strategy?

RoSPA response

No.

Trends in innovation for rural transport

Innovation has the potential to transform how people and goods move around rural areas both now and in the coming decades. We are seeing a number of trends emerge. These trends include:

- An increase in the use of active travel (including walking, cycling and e-bikes) in rural areas.
- The potential for micromobility to move within rural areas
- More effective integration of journeys between modes for a single journey
- The use of digital innovation to provide more flexible services, such as demand responsive transport
- New modes of transport being developed, such as self-driving vehicles
- Sense of rural community spirit, leading to the development of innovative shared community transport services

What examples, in rural areas, do you have for the transport trend of:

- **Increasing use of active travel modes**
- **Micromobility**
- **More effective integration of journeys**
- **Digital models for more flexible services**
- **Data and digital improvements**
- **New modes of transport**
- **Strong community links?**

RoSPA response

Increasing use of active travel modes

On average, people in cities and towns travel approximately 40% more miles walking and cycling than those in rural areas. Lower walking and cycling rates in rural areas could be linked to a lack of infrastructure. In these areas, there tends to be a lack of active travel infrastructure, including safe walking and cycling routes between towns and villages.

However, the trend in the uptake of electric bikes may have the potential to increase active travel in rural areas. These bikes can be particularly suitable in semi-rural areas for last-mile trips and connecting to public transport. Pedal assist can also be useful in rural areas, where the terrain may be hillier than in urban areas. There are a number of reasons that a cyclist may wish to have assistance while pedalling, such as carrying equipment and travelling routes with lots of hills or they can be a solution for those who are recovering from an injury or illness or who wish to cycle to work. Many buyers of electric bikes have tended to be people who would not otherwise cycle at all or on longer journeys.

Electric bikes are also becoming popular with the older road user. For example, Halfords reported that it sells 65% of its electric bikes to those aged over 55[7]. Populations in rural areas are on average, older than urban areas. While only 27% of those aged over 65 live in predominantly rural areas, the average age of the rural population is 43, whereas the average age of people living in predominantly urban areas is 38. The population aged 65 years and over is projected to grow by around 50% in both urban and rural areas between 2016 and 2039. Although young populations are projected to grow in urban areas, there is no projected change in the number of young people rural areas, leading to an increase in the ratio of older to younger people in these areas.

Improvements in walking and cycling infrastructure are required to encourage more active travel in these areas.

Micromobility

Micromobility may also increase the transport offering for those living in rural areas. Micromobility vehicles offer a new way of moving around. They can make journeys quicker and easier, particularly where there are limited public transport alternatives. They could provide a substitute to making short journeys by car. As the world adapts to life with COVID-19, it is more important than ever to encourage commuters to choose safe, socially-distant, travel options, such as e-scooters.

Micromobility vehicles can also provide new transport choices for some disabled or older people, for example, for those who are less able to walk medium to long distances and otherwise may use a car.

Micromobility vehicles could also be considered an answer to the problem of the "last mile" commute: the final part of a public transport journey from station to destination that road users feel it may be too far to walk. This means they can help people take other forms of public transport, by providing a link between a station or bus stop and a place of work, for instance. Even with their short range, then, they could help reduce the number of longer car journeys. However, RoSPA does not believe that some micromobility vehicles, such as e-scooters are likely to be suitable for high speed rural roads with lots of bends.

Tees Valley, Norfolk and Great Yarmouth are currently conducting shared e-scooter trials.

We believe that the roll-out of shared e-scooters should be matched by rigorous user education. RoSPA has teamed up with an e-scooter provider to develop a unique rider course to provide theoretical and practical lessons on how to ride safely on Britain's roads. It will be delivered around the country at key e-scooter hubs in city centres, community parks and on university campuses.

[7] Halfords cited in iNews (2018) 'Why electric bikes have become so popular'
URL: https://inews.co.uk/news/health/why-electric-bikes-have-become-so-popular/
Date Accessed: 31/08/2018.

More effective integration of journeys

Commonly, for those without access to a private car, more than one mode is required to complete a journey in rural areas. To ensure that journeys are efficient, the network needs to be integrated.

RoSPA recognises that as more accurate and live data on services become available, there is an opportunity to link different services together to create a more seamless experience for the user. Digital platforms such as Mobility-as-a-Service (MaaS) allow users to plan, book and pay for their travel, and other journey planning applications provide travellers with information on linking journeys over multiple modes.

Mobility as a Service business models must promote inclusivity to all sectors of society. If implemented effectively, new mobility services could widen the affordability, availability and accessibility of traditional and emerging types of transport. It could also improve social inclusion, such as reducing loneliness through encouraging the use of public transport and ride sharing. Information on how to book journeys will need to be available in accessible formats (not just digital) for those with additional transport needs, and as not to deter less confident users from booking journeys.

However, if MaaS is delivered exclusively through a digital interface (e.g. smartphone apps, web-based service) it will prevent some people from accessing the service[8]. MaaS's reliance on registration and digital mobile applications, for example, might further exclude social groups experiencing difficulties in handling new technologies. There is evidence that older age groups are not comfortable with using applications on smartphones, especially taxi-hailing apps, and have anxieties about online transactions[9]. Furthermore there remains a 'capability' question for older age groups in using app-based platforms[10] casting doubt that older age groups would be adopters of MaaS.

We also expect to see a significant increase in demand for charging infrastructure for electric vehicles as conventional vehicles are phased out. It is vital that rural communities are not left behind.

RoSPA believes that motorcycle ride-to-work schemes should also be considered and could contribute to the transport mix in rural areas.

An example of this is the Wheels2Work scheme in Shropshire. The scheme, run by Shropshire Rural Communities Charity, makes such a transport loan to people who have no other access to private or public transport to get

[8] The Institution of Engineering and Technology. Could Mobility as a Service solve our transport problems? https://www.theiet.org/media/3666/mobility-as-a-service-report.pdf

[9] Shirgaokar cited in Pangbourne et al. Questioning mobility as a service: Unanticipated implications for society and governance. Transportation Research Part A: Policy and Practice. Volume 131, January 2020, Pages 35-49.

[10] Fitt cited in Pangbourne et al. Questioning mobility as a service: Unanticipated implications for society and governance. Transportation Research Part A: Policy and Practice. Volume 131, January 2020, Pages 35-49.

them to work or work-based training, and includes training and some protective clothing in the price of the heavily subsidised loan.

One of the advantages of these schemes is that they could overcome people's lack of willingness to share transport with others due to the COVID-19 pandemic.

Digital models for more flexible services

RoSPA believes that replacing standard, infrequent bus services with a more flexible demand-responsive approach could have benefits for people living in rural areas.

With increasing data and digital capability, we are seeing the emergence of new digitally-enabled models, such as demand-responsive transport (DRT) could present an affordable travel option in rural communities. These platforms can be flexible in the services they provide to meet demand, increasing their commercial viability, while providing greater convenience for users. New models of 'feeder services', for example, shared taxis and DRT, could be trialled in rural areas to determine whether they can meet some of the needs of people at lower costs – both to individuals and communities.

A well-organised public transport system in rural areas can enhance economic growth by improving social inclusion, accessibility and mobility. Traditionally, the characteristics of rural areas have presented barriers to improving public transport. This is because rural homes are often distributed over larger areas, population density is low and therefore potential passenger numbers are limited and the level of demand is unpredictable. As a result, public transport systems in rural areas generally suffer from low and uncertain demand, and service coverage is very limited since the provision of frequent and widespread public transport services is financially unjustifiable for the passenger numbers attainable[11].

Evidence[12] suggests that a well-designed flexible transport system can integrate different modes of transport to provide more user-centric, comfortable, and cost effective transport options by offering desired flexibility in choosing route, time, mode of transport, service provider and payment system.

A feasibility evaluation of flexible transport system[13] showed that flexible transport systems are one of the better solutions for transport problems in remote areas with low demand where conventional public transport systems

[11] Velaga, N. R. et al. The Potential Role of Flexible Transport Services in Enhancing Rural Public Transport Provision, Journal of Public Transportation, Vol. 15, No. 1, 2012 https://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1099&context=jpt

[12] Nelson and Phonphitakchai cited in Velaga, N. R. et al. The Potential Role of Flexible Transport Services in Enhancing Rural Public Transport Provision, Journal of Public Transportation, Vol. 15, No. 1, 2012 https://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1099&context=jpt

[13] Takeuchi et al cited in Velaga, N. R. et al. The Potential Role of Flexible Transport Services in Enhancing Rural Public Transport Provision, Journal of Public Transportation, Vol. 15, No. 1, 2012https://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1099&context=jpt

are not appropriate. It was identified that flexible transport systems can improve mobility for socially disadvantaged users (such as older adults and persons with disabilities) in rural areas. One study[14] reviewed a specific service (Treintaxi services in Netherlands) that connects train stations and surrounding suburban and rural areas and found that Treintaxi services improve connectivity.

In an international review, Enoch et al.[15] found that fixed-route, fixed-schedule public buses are not ideally suited to serving dispersed rural areas with correspondingly low demand for public transport; and substitution of flexible services can replace conventional public transport services. However, there can be problems with lack of operators willing or able to participate in rural areas and in smaller settlements, leading to shortage of vehicles[16].

Schemes may also be less affordable in rural areas. A review of 48 schemes in England and Wales[17] found that in rural areas, 16 out of 25 schemes require more than £5 subsidy per passenger trip, eight out of 25 schemes require £2–£5 subsidy per passenger trip, and one service is breaking even. Funding remains a key barrier to the introduction of these schemes in rural areas.

Digital applications for car and ride-sharing can also improve the consumer experience and make these services easier to use. This could have particular benefit for employers with large numbers of staff driving to work in business parks or other out-of-town zones. There are financial, logistical and decarbonisation benefits from developing shared transport options, such as commuter shuttles, or people sharing privately owned cars.

However, the Department must consider the impact that COVID-19 may have on people's willingness to share transport with others for the foreseeable future.

Do you think there are other trends in innovation we haven't included?

[14] Scott cited in Velaga, N. R. et al. The Potential Role of Flexible Transport Services in Enhancing Rural Public Transport Provision, Journal of Public Transportation, Vol. 15, No. 1,
2012https://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1099&context=jpt
[15] Enoch et al cited in Velaga, N. R. et al. The Potential Role of Flexible Transport Services in Enhancing Rural Public Transport Provision, Journal of Public Transportation, Vol. 15, No. 1,
2012https://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1099&context=jpt
[16] Grosso et al cited in Velaga, N. R. et al. The Potential Role of Flexible Transport Services in Enhancing Rural Public Transport Provision, Journal of Public Transportation, Vol. 15, No. 1,
2012https://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1099&context=jpt
[17] Laws et al cited in Velaga, N. R. et al. The Potential Role of Flexible Transport Services in Enhancing Rural Public Transport Provision, Journal of Public Transportation, Vol. 15, No. 1,

2012https://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1099&context=jpt

Response to Department for Transport's call for evidence: Future of transport: rural strategy

RoSPA response

No.

Encouraging transport innovation in rural areas

We want to be able to harness innovation in transport to encourage a greater range of transport services to become available across rural areas. We recognise that some innovations could be available over the short term, while others will be developed over the next decade. We want to create the conditions to enable near-term innovation to be realised, whilst ensuring that the needs of rural areas are embedded in longer-term technologies and services as they are developed.

In the 'Future of mobility: urban strategy', we provided a set of principles to underpin our approach to transport innovation in urban areas. These include that:

- New modes of transport and new mobility services must be safe and secure by design
- The benefits of an innovation in mobility must be available to all parts of the UK and all segments of society
- Walking, cycling and active travel must remain the best options for short journeys
- Mass transit must remain fundamental to an efficient transport system
- New mobility services must lead the transition to zero emissions
- Mobility innovation must help to reduce congestion through more efficient use of limited road space, for examples through sharing rides, increasing occupancy or consolidating freight
- The marketplace for mobility must be open to stimulate innovation and give the best deal for consumers
- New mobility services must be designed to operate as part of an integrated transport system combining public, private and multiple modes for transport users
- Data from new mobility services must be shared where appropriate to improve choice and the operation of the transport system

We think these principles are also relevant to guide the application of innovation to rural areas as well to ensure that this innovation can meet wider social and economic policy objectives and limit any unintended consequences.

Do you think the future of transport rural strategy should include that:

	Yes	No	Don't know
New modes of transport and new mobility services must be safe and secure by design principle?	X		
The benefits of innovation in mobility must be available to all parts of the UK and all segments of society principle?	X		
Walking, cycling and active travel must remain the best options for short urban journeys principle?	X		
Mass transit must remain fundamental to an efficient transport system principle?	X		
New mobility services must lead the transition to zero emissions principle?	X		
Mobility innovation must help to reduce congestion through more efficient use of road space, for example through sharing rides, increasing occupancy or consolidating freight principle?	X		
The marketplace for mobility must be open to stimulate innovation and give the best deal to consumers principle?	X		
New mobility services must be designed to operate as part of an integrated transport system combining public, private and multiple	X		

modes for transport users principle?			
Data from new mobility services must be shared where appropriate to improve choice and the operation of the transport system principle?	X		

What additional principles would you like to see in this strategy?

RoSPA response

RoSPA does not have any further suggestions.

Are there specific considerations for testing and trialling new technologies in rural areas you think we should consider?

RoSPA response

RoSPA recognises that creating a safe environment for testing and trialling new technologies is important for understanding how new technologies are embedded in the real world, enabling local leaders to shape emerging mobility technologies and services proactively and gathering customer insights. However, we do not have any suggestions of specific considerations for testing and trialling new technologies in rural areas.

In your view what should be the role of:

- **Central government be in encouraging innovation in rural areas?**
- **Sub-national transport bodies be in encouraging innovation in rural areas?**
- **Local authorities be in encouraging innovation in rural areas?**

RoSPA response

RoSPA agrees with the approach outlined in the consultation document, in that central government has a role to play in ensuring there is a flexible, innovation-friendly regulatory framework.

We also agree that local authorities have a strong role in decisions on transport needs and deployment of new services in their areas. This is because those living and working in the area have a better understanding of the demographics and needs of residents in their area.

Do you think government should encourage the private sector to develop innovative new transport services in rural areas?

RoSPA response

Yes.

How do you think government should encourage the private sector?

RoSPA response

RoSPA is not in a position to comment.

Any other comments?

RoSPA response

RoSPA has no further comments to make on the consultation process, other than to thank the Department for the opportunity to comment. We have no objection to our response being reproduced or attributed.