20mph Default Speed Limit in Wales

Integrated Impact Assessment

23 May 2022

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# Overview of this Integrated Impact Assessment

**Introduction**

This Integrated Impact Assessment (IIA) relates to the Welsh Government’s proposal for changing the default speed limit for restricted roads (generally referred to as the ‘default speed limit’) within Wales to 20mph and the practical actions needed to implement this change. Restricted roads are identified as roads that serve built-up areas, the majority of which are residential areas.[[1]](#footnote-2) Where a change in the national default speed limit is referred to this considers the default speed limit within Wales only (not the rest of the UK).

The purpose of the IIA is to identify the main impacts of implementing a default speed limit of 20mph within Wales on restricted roads. It considers how the proposal fits with the priorities and vision of the programme of Welsh Government, how it contributes to the social, cultural, economic and environmental well-being of Wales and how it will affect Wales and the population of Wales.

The Welsh Government is planning to implement the 20mph policy which will introduce a national default speed limit of 20mph on restricted roads within Wales. Subordinate legislation will need to be passed by the Senedd to achieve this. The change in the default speed limit will require changes to policy and guidance, including guidance to local authorities on setting local speed limits. The Highway Code will also need to be amended.

There will be some restricted roads within Wales that will be identified as an exception and will not be subject to a 20mph speed limit. Local authorities will have the responsibility for identifying these roads and when doing so will consider the functions of each section of road or street both as a corridor for all types of movement and as a place for local people to live and access local amenities.

In May 2019 the Wales 20mph Task Force Group was formed which identified the outcomes which would be expected from changing the default speed limit for restricted roads in Wales to 20mph and the practical actions needed to implement this change in the law. The findings from the Task Force report[[2]](#footnote-3) have been discussed throughout this IIA.

**Context**

A total of 4,000 personal injury collisions (PIA) associated with road traffic were recorded in Wales during 2018 with an average of 926 people killed or seriously injured (KSI) on Welsh roads between 2018 and 2020[[3]](#footnote-4). Whilst there has been an overall reduction (29.4%) in the number of people being killed or seriously injured (KSI) on Welsh roads between 2015 and 2020[[4]](#footnote-5), the numbers of such incidents remain high, with a total of 729 KSI incidents in the year 2020[[5]](#footnote-6). A high proportion of serious casualties occur on roads with a 30mph speed limit – mostly located in built-up areas with higher levels of interaction / potential conflict between vehicles, pedestrians and cyclists. In 2019, 45% of all serious casualties and 28% of all fatalities occurred on roads with a 30mph limit[[6]](#footnote-7).

In 2013 the Welsh Government published its current Road Safety Framework which set a series of targets for reductions in the number of people being killed or seriously injured, including a 40% reduction in KSI by 2020. The number of KSIs remains higher than this target, reducing by less than 30% as noted above. Furthermore, with a recent increase in PIA between 2017 to 2018[[7]](#footnote-8), the Welsh Government has determined further action is required. Deputy Minister for Climate Change, Lee Waters, MS, recognises the importance of adopting a default 20mph speed limit in improving road safety within Wales, stating;

*“Reduced traffic speeds result in reduced accidents, particularly accidents to children, and creates good conditions for active travel.”[[8]](#footnote-9)*

There is evidence that lower speeds result in fewer collisions and a reduced number of casualties and severity of injuries[[9]](#footnote-10). Taking the Bristol 20mph study as an example[[10]](#footnote-11), over the period of reduced speed implementation from 30mph to 20mph, there was a reduction in the number of fatal, serious and slight injuries from road traffic collisions in the pilot area, equating to an estimated cost saving of over £15m per year.[[11]](#footnote-12) There is also some evidence that 20mph limits lead to more walking and cycling[[12]](#footnote-13), which is strongly supported by legislation and policy in Wales.

Currently just 2.5% of the road network in Wales is subject to a 20mph speed limit, even though most roads only serve residential areas. By making the default limit 20mph for restricted roads, local authorities will in future only need to identify the far fewer sections of road where a higher speed is justified. This will enable the rapid and substantial expansion of 20mph limits in a highly cost-effective way.

The ‘Welsh 20mph Task Force Group Final Report’ (July 2020) set out an initial list of ‘desired outcomes’ for 20mph implementation. These have since been reviewed and refined into three core objectives:

* Reduce injuries on the road network;
* Encourage a change in travel behaviour, with people feeling confident, safe, and secure enough to increase their use of active travel modes; and
* Improve the environment within local communities by reducing the negative externalities associated with vehicle use.

This IIA will focus on the potential positive and negative impacts the adoption of a default 20mph speed limit will have within Wales. It will review the enforcement, engineering, communication and marketing strategy, monitoring and evaluation, and implementation of the policy in both the short and long term. It will assess and evaluate available evidence around the extent of the policy’s potential impacts. This includes key areas of benefit identified by the 20mph Task Force Group (as outlined above) and other potentially positive impacts on health, social and environmental well-being and culture. The assessment will also account for potential negative impacts of the policy, including drawbacks for some road users and businesses of slower speeds and increased travel times for some journeys.

**Consideration of policy and Welsh Government Strategies**

The Welsh Government’s IIA Guidance places an emphasis on thinking about how the proposal will contribute to the goals of the Well-being of Future Generations (Wales) Act. Other relevant policies and legislation which the proposal aligns with have also been considered within this IIA and outlined below.

The Well-being of Future Generations (Wales) Act 2015

*Development in accordance with the sustainable development principle*

The seven Well-being Goals and the five ways of working under the Sustainable Development Principle set out in the Well-being of Future Generations (Wales) Act 2015, outline a clear framework for government decision-making. The Act prompts public bodies to “show our workings” in development, making clear how the ways of working set out in the Act have been actively applied in order to maximise the contribution across the seven well-being goals and the Welsh Government’s [well-being objectives](https://gov.wales/docs/strategies/170919-wellbeing-statement-en.pdf).[[13]](#footnote-14)

According to IIA guidance, to find shared sustainable solutions, the Welsh Government needs to:

* Think laterally when developing policy;
* Consider the potential impacts and long-term consequences of policy on a wider set of parameters;
* Look to prevent problems occurring or getting worse;
* Work collaboratively with a wider range of colleagues and stakeholders and involve people affected in all their diversity; and
* Make the connections between social, economic, environmental and cultural challenges and integrate our planning and delivery with other policy areas for maximum good effect.

The proposed default 20mph speed limit has been developed in alignment with both the five ways of working and the seven well-being goals set out in the Well-being of Future Generations (Wales) Act 2015. These are considered throughout the discussion of the likely impacts on social, cultural, economic and environmental well-being in Sections 2-5 of this IIA and are outlined in the table overleaf.

Table 1: Well-being of Future Generations Act – Well-being Goals and Ways of Working

| **The Well-being of Future Generations (Wales) Act 2015** | |
| --- | --- |
| **The Well-being Goals** | **The Five Ways of Working** |
| A Prosperous Wales | Long-term |
| A Resilient Wales | Integration |
| A More Equal Wales | Involvement |
| A Healthier Wales | Collaboration |
| A Wales of Cohesive Communities | Prevention |
| A Wales of Vibrant culture and Thriving Welsh Language |
| A Globally Responsible Wales |

Building on the five ways of working, throughout the review of the different impacts in Sections 2-5 and Annexes A-F of this IIA, reference is made as to how the proposed policy:

* Responds to the need to think **long term,**
* **Prevents** problems from occurring or getting worse,
* How stakeholders have been **involved** and opportunities for further **collaboration**; and
* How economic, social, cultural and environmental issues have been considered in an **integrated** way.

**Planning Policy Wales Edition 11 (PPW11)[[14]](#footnote-15)**

Planning Policy Wales Edition 11 (PPW11) sets out the Welsh Government’s land use planning policies. One theme within PPW is the creation of active and social placemaking and well-being. Active and social places are considered to be places that promote Wales’ social, economic, environmental and cultural well-being by providing well-connected cohesive communities. The adoption of a 20mph default speed limit is highlighted as a way to improve the street environment and promote road safety. PPW also states new development should improve the quality of place and create safe, social, attractive streets where people want to walk, cycle and enjoy, and children can play. The introduction of a 20mph speed limit is considered to be a way to achieve this.

PPW also has a policy to require the use of a sustainable transport hierarchy which prioritises walking and cycling and public transport ahead of private motor vehicles. The sustainable transport hierarchy should be used to reduce the need to travel, prevent car-dependent developments and support the delivery of schemes located, designed, and supported by infrastructure which prioritises access and movement by active travel and sustainable transport. The design and layout of streets, which includes the adoption of a default 20mph speed limit, must give a high priority to their role as public spaces and meeting the needs of pedestrians, cyclists and public transport users, reflecting the principles of a sustainable transport hierarchy.

**Llwybr Newydd: the Wales Transport Strategy 2021**15

Llwybr Newydd: the Wales Transport Strategy 2021 places people and climate change at the forefront of the Welsh transport system. The Wales Transport Strategy sets out the vision for how the system can help deliver priorities for Wales, helping to put Wales on a pathway to creating a more prosperous, green and equal society.

Reduction of the default speed limit from 30mph to 20mph on restricted roads is outlined as a priority within the Wales Transport Strategy. The objectives of the reduced speed limit are identified as being to reduce traffic related injuries and fatalities and make walking and cycling safer and more attractive. The strategy also outlines the requirement for the government, local authorities, transport providers (both commercial and third sector) and Welsh Government employees to work together to help ensure that transport and the transport strategy priorities contribute to the current and future well-being of Wales[[15]](#footnote-16). The planning and implementation of the 20mph policy by the Welsh Government, in partnership with local authorities (described in further detail in the sections that follow) is an example of this joined-up approach.

**Technical Advice Note (TAN) 18: Transport**16

TAN 18 sets out the need for an efficient and sustainable transport system to achieve a prosperous and inclusive society. TAN 18 highlights how road traffic and congestion can have negative impacts on human health, the environment and the economy. The need for local authorities to take into consideration the needs of walkers and cyclists in all development planning decisions is also emphasised within the technical note. The adoption of a 20mph default speed limit will help achieve the objectives set out in TAN 18 by reducing traffic speeds, encouraging increased safety and improve the environment for pedestrians and cyclists[[16]](#footnote-17).

**The Clean Air Plan for Wales Healthy Air, Healthy Wales[[17]](#footnote-18)**

The Clean Air Plan for Wales sets out the Welsh Government’s commitment and long-term ambitions to improve air quality. It is connected to a suite of policies and actions which, across different thematic areas, will make positive differences to health and well-being, the natural environment, ecosystems and biodiversity, while also supporting vibrant, sustainable and fair communities, and national prosperity[[18]](#footnote-19).

The policy recognises the Welsh Government’s efforts to create a safe environment for walking and cycling, and it advocates the promotion of active travel due to its benefits to air quality, individuals, and society. The notable benefits of active travel include improved mental and physical health, reducing emissions and reduced congestion.

One of the actions set out in the Plan is to work with external partners to develop and align behaviour change programmes to encourage uptake of healthy and active travel modes. The Plan highlights the role the adoption of a default 20mph speed limit can have in achieving this and helping to create places where conditions for walking and cycling are improved and traffic related injuries and fatalities are reduced.

**Connected Communities, A strategy for tackling loneliness and social isolation and building stronger social connections[[19]](#footnote-20)**

Connected Communities is the Welsh Government’s strategy for tackling loneliness and social isolation and building stronger social connections. Connected Communities prioritises increasing opportunities for people to connect and therefore is committed to supporting the creation of a high-quality transport system within Wales, in addition to place making and the creation of sustainable places. The adoption of a 20mph default speed limit aligns with the aims of Connected Communities; the lowering of the speed limit will create a more attractive environment for active travel modes such as walking and cycling contributing to the creation of sustainable communities, reduced social isolation and improved social connectiveness.

**Road Safety Framework for Wales, 2013[[20]](#footnote-21)**

The Road Safety Framework sets out the Welsh Government’s priorities for road safety and focuses on casualty reduction. The framework sets out three targets which were to be achieved by 2020. These targets are:

1. A 40% reduction in the total number of people killed and seriously injured on Welsh roads by 2020, meaning 562 fewer killed and seriously injured casualties.
2. A 25% reduction in the number of motorcyclists killed and seriously injured on Welsh roads by 2020, meaning 64 fewer motorcyclists killed and seriously injured casualties; and
3. A 40% reduction in the number of young people (aged 16-24) killed and seriously injured on Welsh roads by 2020, meaning 139 fewer young people killed and seriously injured casualties.

The framework draws on evidence which suggests reducing speed on the road dramatically reduces the severity of collisions and encourages more people to walk. As such, introduction of a 20mph speed limit is highlighted as an intervention Welsh Government could take to help achieve the targets.

While the Welsh Government is yet to achieve the targets which were aimed to be met by 2020, progress has been made and is outlined in the table below. It is considered that lowering the default speed limit will further contribute to achieving the frameworks targets.

|  |  |  |
| --- | --- | --- |
| Target Group | Target Reduction | Actual Reduction by 2018 |
| All people | 40% | 19.1% |
| Young people (16-24) | 40% | 44.7% |
| Motorcyclists | 25% | 6.6% |

The Welsh Government are currently developing a new road safety strategy to be published in 2024 which will supersede the new targets.

**Global Plan, Decade of Action for Road Safety 2021-2030[[21]](#footnote-22)**

The Global Plan has been developed by the World Health Organisation and the United Nations Regional Commissions in cooperation with partners in the United Nations Road Safety Collaboration as a guiding document to support the implementation of the Decade of Action 2021-2030 and its objectives.

The Action Plan for Road Safety has a target of reducing road deaths and injuries by 50% and calls for countries to act, highlighting the urgency for action. The Plan recognises road safety as a shared responsibility and outlines the role government can have in achieving the target. The Plan states that there is evidence that the best road and vehicles design features are unable to guarantee the safety of all road users when road speeds are above 20mph and as such recommends that in urban areas where there is a typical, predictable mix of road users, a maximum speed limit of 20 mph should be established, unless strong evidence exists to support higher limits[[22]](#footnote-23).

**Integrated Impact Assessment (IIA) Methodology**

This IIA has been prepared using the Welsh Government IIA report template, and summarises the main impacts associated with the proposal to change the default speed limit for restricted roads within Wales to 20mph. In completing it, this IIA considers how the proposals:

* can contribute to the social, cultural, economic and environmental well-being of Wales; and
* might affect Wales and the people who live in Wales, positively or negatively.

While the Welsh Government IIA guidance does not contain a template for all assessments, it directs the assessor to additional Welsh Government guidance. For example, for the Health Impact Assessment, the guidance provided by the Wales Health Impact Assessment Support Unit ‘WHIASU’[[23]](#footnote-24) has been used.

The IIA Guidance explains that an assessor should assess the impact of a proposal as policy is developed. This is often an iterative process and involves a proportionate approach to assessment, taking a rounded view of the main impacts and providing the basis for future evaluation.

The IIA is a tool for recording the impacts that can be identified and helps guide the various aspects of impact that need consideration.

At the end of each of the following sections there are screening questions to help decide whether a more detailed analysis of a particular topic is needed.

The WG IIA Guidance sets out how an IIA should be approached, and this has been followed for this IIA. The general steps of an IIA are described in the guidance as shown in Figure 0‑1

Figure 0‑1 How to use the IIA

A flow chart illustrating how to use an Integrated Impact Assessment

All IIAs require an Equality Impact Assessment (which incorporates the assessment of the policy’s alignment with the socio-economic duty), Welsh Language Assessment and Biodiversity Assessment to be undertaken as a mandatory part of the review. Based on discussions with the Welsh Government, a review of the evidence related to impacts from the introduction of 20mph speed limits and consultation with a range of stakeholders, the following table identifies which non-mandatory assessments have been scoped into the IIA[[24]](#footnote-25).

| Impact Assessment | Yes/No | Location in IIA report |
| --- | --- | --- |
| Children’s rights | Yes | Annex E |
| Equality | Yes\* | Annex D |
| Rural Proofing | Yes | Annex F |
| Health | Yes | Annex B |
| Privacy | No |  |
| Welsh Language | Yes\* | Annex C |
| Economic | Yes | Section 4 and RIA |
| Justice | No | A formal Justice Impact Assessment is not required however, this IIA provides a high-level assessment outlined in section 4.5 |
| Biodiversity | Yes\* | Annex A |
| Climate Change | Yes | Section 5 |
| Socio-economic duty | Yes\* | Included within annex D |
| Strategic Environmental Assessment | No |  |
| Habitat Regulations Assessment | No |  |
| Environmental Impact Assessment | No |  |

\* Mandatory for all proposals in order to meet statutory obligations.

**IIA Structure**

Taking into account all of the impact assessments outlined in the table above, the remainder of this document is structured as follows:

* Section 1 provides an explanation as to what action the Welsh Government is taking in regard to the default speed limit and why.
* Sections 2-5 set out a summary discussion of the potential effects the proposals will have, as follows:
* Section 1. What action is the Welsh Government considering and why?
* Section 2. What will be the effect on social well-being?
* Section 3. What will be the effect on cultural well-being and the Welsh language?
* Section 4. What will be the effect on economic well-being?
* Section 5. What will be the effect on environmental well-being?
* Section 6: Record of Full Impact Assessments
* Section 7. Conclusion

Where appropriate, the above sections cross reference to the annexes of this report (Annexes A – G), where relevant full impact assessments have been completed.

Sections 1-6 below provide a summary of findings from within these impact assessments and discuss the positive and negative effects the proposal will have on social, cultural, economic and environmental well-being. Potential mitigation is identified along with any gaps in the evidence base and available literature.

**Proportionality**

The Welsh Government IIA Guidance explains that an assessor should assess the impact of a proposal as its policy is developed[[25]](#footnote-26). This is often an iterative process and involves a proportionate approach to assessment, taking a rounded view of the main impacts and providing the basis for future evaluation.

The assessments included within this IIA are based on the information available at the time of writing (April 2022), prior to the full implementation of the new default speed limit and associated monitoring activities.

The Welsh Government has worked with Transport for Wales and local authorities to develop a Monitoring and Evaluation Plan. The data from the monitoring will be used to inform elements of this IIA in future updates, along with data published by third parties or provided by the Welsh Government.

Please note while this IIA has been informed by extensive primary and secondary research, academic literature and pertinent case studies, continuous monitoring of the proposed 20mph default speed limit will be needed, and further research may be required to fully understand the long-term impacts the proposal could have on each assessment area.

**Regulatory Impact Assessment (RIA)**

We note that, in parallel to this IIA, a Regulatory Impact Assessment (RIA) is also being undertaken. This provides an assessment of the policy options being considered and presents an analysis of the benefits and costs of the policy. A first draft version of the RIA was issued to the Welsh Government on 5 May 2022.[[26]](#footnote-27)

# 

# Section 1. What action is the Welsh Government considering and why?

* 1. **Introduction of the adoption of a default 20mph speed limit on restricted roads**

Section 81(1) of the Road Traffic Regulation Act (1984) (the Act)[[27]](#footnote-28) states that it is unlawful to drive a motor vehicle on a restricted road at a speed exceeding 30mph. A restricted road in Wales is defined in Section 82 of the Act as a road with a system of street lighting where lamps are placed not more than 200 yards (183m) apart.[[28]](#footnote-29) The Welsh Government is proposing the introduction of a default 20mph speed limit on restricted roads, which is expected to deliver environmental, social and safety-related benefits to the people of Wales. At this stage, beyond additional signage no other physical modifications to roads, e.g., speed bumps, traffic calming measures, are generally proposed.

The Wales Transport Strategy (WTS)[[29]](#footnote-30) highlights the need to change the way people in Wales travel in order to achieve carbon net zero by 2050. To do this, the WTS places an emphasis on fewer cars on Welsh roads, and more people using public transport, walking, or cycling on a daily basis. Whilst there is limited evidence that a reduced speed limit will significantly reduce the overall number of vehicles on the road, the proposal for a default 20mph speed limit would reduce traffic speeds on local roads. This is expected to achieve road safety benefits, particularly in deprived neighbourhoods, whilst also improving perceptions of safety and providing a quieter, more pleasant environment, thereby encouraging and enabling a greater take-up of walking and cycling.

Although levels of demand for some sustainable transport modes – most notably rail – have grown significantly over the past 15 years, with levels of cycling also increasing, private car journeys are still the dominant mode of transport, whilst the number of pedestrian journeys has actually fallen. The default 20mph speed limit will aim to encourage more people to walk and cycle and support a key objective of the WTS by encouraging mode shift away from the car towards active travel modes.

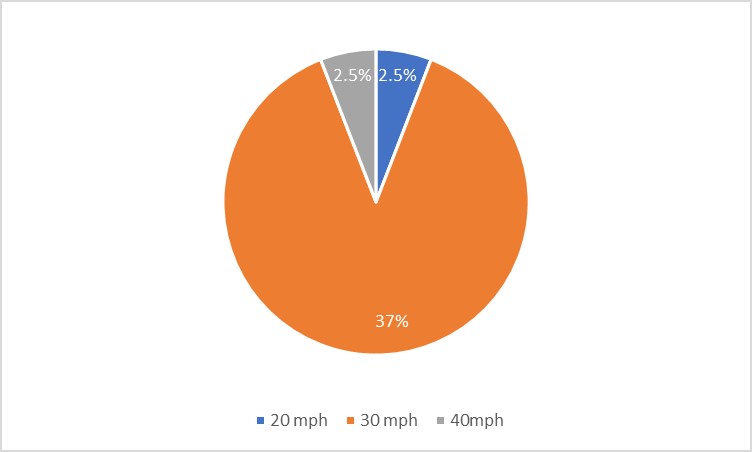
Despite the growth in road transport, pedestrian casualties fell by 2.5% between 2017 and 2018. In 2018, some 1,137 people within Wales were killed or seriously injured in a road traffic collision [[30]](#footnote-31), which fell to 820 in 2020 (a drop which is likely to be attributable at least in part to the lockdown policies of the pandemic)[[31]](#footnote-32). In 2020 (during Covid lockdown year), the largest proportion of serious casualties occurred on roads with a 30mph speed limit 45%. 28% of all fatalities occurred on roads with a 30mph limit. Number of reported fatalities on roads with 30mph speed limits has been increasing since 2020 and in 2022 stood at 29 fatalities, demonstrating road safety within Wales still has space to significantly improve.

The adoption of a 20mph default speed limit on restricted roads is expected to help reduce the number and severity of road crashes / collisions and ensuing injuries, as well as contribution to a reduction in negative externalities of vehicle use such as noise and pollution. This in turn will help support improved conditions in residential areas and thereby contribute towards an improved quality of life in local areas. The adoption of a 20mph default speed limit should be considered in conjunction with the Climate Change Committee’s carbon reduction pathway for Wales. It is proposed that emissions from surface transport must be roughly halved between 2020 and 2030 from six to three million tonnes CO²[[32]](#footnote-33). It is important to note that the increasing usage of electric vehicles and eventual phasing out of internal combustion engines will have a primary role to play in achieving this[[33]](#footnote-34), with electric vehicles also causing lower levels of noise pollution. Nevertheless, the 20mph policy further enhances these outcomes as a reduction in speed will reduce the noise produced from any vehicle (electric or other); furthermore, electric vehicles consume less energy when travelling at lower speeds.[[34]](#footnote-35)

Set against this are potential economic disbenefits associated primarily with car drivers and businesses that rely on road transport, with increased time required for some journeys as a result of the reduced speed limit. This can result in economic costs associated with longer local journeys (noting that it takes one minute longer to drive a mile at 20mph compared to driving it at 30mph) as well as uncertain implications of the potential for increased journey times on the bus and freight sectors. These aspects are discussed further in section 4 of the IIA.

An alternative option to legislating for a default 20mph speed limit is that local authorities continue to reduce speed limits incrementally using powers under The Road Traffic Regulations Act (1984). This has been the approach taken in recent years, and the Welsh Government has encouraged local authorities to make use of these powers. However, the extent of change delivered under this approach has been limited and the majority of restricted roads within Wales remain at 30mph (Figure 2). Therefore, the Welsh Government has concluded that to make implementation of reduced road speeds more widespread a default 20mph speed limit should be adopted.

Figure 2 Road Lengths (by km) of Wales by Speed Limit (20mph to 40mph)[[35]](#footnote-36)



Currently whenever local authorities wish to change the speed limit to 20mph they must make a Speed Limit Order (SLO) via the powers they have under the Road Traffic Regulations Act (1984) as outlined above, regardless of whether this is only a single street or a large part of an urban area. These SLO processes are costly and time consuming. In 2018 the Department for Transport (DfT) commissioned GeoPlace to advise how the SLO processes could be made quicker and more cost-effective. Work has recently begun on this assessment, and the Welsh Government is currently reviewing the relevant legislation to identify how the SLO process in Wales can be simplified.

Under Section 81(2) of the Road Traffic Regulation Act 1984 (the Act), Welsh Ministers have the power to make an order to increase or decrease the speed limit for restricted roads. The current proposals would be made by subordinate legislation under Section 81(3) of the Act which would mean that there would be an introduction of 20mph speed limits on most roads in built up areas in Wales. The implementation of a lower speed limit by default would substantially reduce the time and cost to all 23 highway authorities in Wales since it would only be necessary for authorities to make SLOs where exceptions are needed to set higher speed limits (e.g. 30mph).

* 1. **Desired outcomes of the 20mph speed limit legislation**

The desired outcomes from the introduction of a national default 20mph speed limit on restricted roads in Wales include[[36]](#footnote-37):

* Reduced vehicle speeds, recognising that compliance will increase over a period of some years. (The Welsh Government is working closely with South Wales Police to determine the optimal approach for enforcement of the policy – discussed further in section 1.3 below).
* Less driving for short journeys that could reasonably be walked or cycled (typically under three miles).
* More use of active travel modes focusing on walking and cycling but could include scooting and other new forms of micro-mobility (small wheels), and horse riding in rural areas.
* Public support for reduced speed limits. This will be monitored by Wales-specific repeat attitudinal surveys and testing awareness and understanding.
* Police public visibility and support for 20mph speed limits.

As part of its plan (developed in partnership with Transport for Wales) to monitor and evaluate the policy post-implementation, the Welsh Government has also set out the following eight specific and measurable objectives to reduce injuries, encourage a change in travel behaviour, and reduce negative externalities of vehicle use to improve the wellbeing of people in Wales:

1. Reduce the number of personal injury casualties on the road network.
2. Reduce the number of personal injury casualties – pedestrians & cyclists.
3. Encourage mode shift away from private car.
4. Increase walking and cycling mode share for journeys to school.
5. Increase footfall in retail and hospitality service areas.
6. Improve behaviour associated with vehicle/pedestrian interaction.
7. Reduce carbon emissions from transport, driven by increasing levels of active travel encouraged by the policy thereby reducing demand for car travel. It is also noted that reduced speeds may reduce vehicular energy consumption, however there is presently a lack of conclusive evidence with regard to the extent to which a reduction in the speed limit from 30mph to 20mph will reduce levels of CO2 emissions from vehicles power by combustion engines – see section 5.4a.
8. Avoid any negative net impact on air quality.

While the adoption of a 20mph default speed limit is expected to bring about a number of benefits, it should be noted, a change from 30mph to 20mph speed limits takes time to bed-in and that widespread compliance and other sought-after changes in behaviour may be limited in the first two years[[37]](#footnote-38).

* 1. **Programme delivery**

The adoption of a 20mph default speed limit on all restricted roads will be the first national scheme in the UK of its kind. The Welsh Government is currently implementing 20mph speed limits in eight pilot settlements (Phase 1 of the 20mph programme) under the existing legislative framework ahead of a proposed national roll-out. Data is being collected from these first phase settlements in relation to vehicle speeds and air quality impacts (with speed related data already assembled and analysed – as outlined later in this section), with further monitoring put in place once the policy has been fully rolled out – see section 7.6). The proposed policy is expected to be delivered in three phases:

* **Phase 1- Pre-Legislation Campaign**:
* National Conversation/consultation about the proposal;
* Announce legislation and rationale;
* Raise awareness and outline potential benefits;
* Monitoring and evaluation linked to eight Phase 1 settlements across Wales (see below)
* **Phase 2- Pre-Implementation Campaign (before September 2023)**:
* Building support and awareness
* Responding to public concerns and discussing impact
* Local authorities’ local engagement regarding 20mph exceptions, supported by local comms and marketing activity
* **Phase 3- Post Implementation Campaign (post September 2023)**:
* Legislation Live Date and early months of 20mph
* Building Support for 20mph
* Demonstrating Road Safety and Health Benefits and the creation of more liveable streets.

Transport for Wales is working with the Welsh Government and local authorities to deliver Phase 1 and developed a Monitoring and Evaluation Plan. The plan is linked to the following three core objectives set out by the 20mph Task Force Group;

* Reduce injuries on the road network;
* Encourage a change in travel behaviour, with people feeling confident, safe, and secure enough to increase their use of active travel modes; and
* Improve the environment within local communities by reducing the negative externalities associated with vehicle use.

Data for the Monitoring and Evaluation Plan will be collected using the eight Phase 1 settlements. Working with seven local authorities in Wales the eight Phase 1 settlements are to be implemented by the end of May 2022, and are outlined in the table below.

|  |  |
| --- | --- |
| **Trial area** | **Start Date** |
| Abergavenny, Monmouthshire | Already live (started 16th May 2022) |
| Buckley, Flintshire | Already live |
| Cardiff (North), Cardiff | Already live (started 7th March 2022) |
| Cilfrew, Neath Port Talbot | Already live (started 16th March 2022) |
| Llanelli (North), Carmarthenshire | Already live (started November 2021) |
| Severnside (including Caerwent, Caldicot, Magor, Undy), Monmouthshire | Already live (started 16th May 2022) |
| St Brides Major, Vale of Glamorgan | Already live (started July 2021) |
| St Dogmaels, Pembrokeshire | Already live (started June 2021) |

The potential impact of Covid-19 and the post-pandemic recovery on Phase 1 monitoring of traffic speeds, journey to school mode shares and pedestrian footfall has been considered. Control sites that are entirely separate from the Phase 1 settlements will be added to the monitoring programme to provide additional information on background trends. The control sites will help to identify the specific impact of 20mph implementation and isolate this from general background trends / changes in travel behaviour. ‘Before’ and ‘after’ data collected in each settlement will be compared to data drawn from a control site where there has been no change to the speed limit.

At the time of writing, traffic speed data has been collected and provided for review from the Phase 1 pilots at St Brides Major, Llanelli North and St Dogmaels. An overview of key outputs from these sites is outlined below (including data showing the difference in key results pre- and post-20mph implementation). Overall, it was found there was a drop in average speeds in the Phase 1 settlements although this drop in speed varied, and at none of the pilot sites did average speeds consistently fall to 20mph. Any speed reduction will however have road safety benefits.

|  |
| --- |
| **St Brides Major** |
| Map including speed monitoring in St. Brides Major, Vale of Glamorgan |
| The volume of traffic pre- and post-implementation has fluctuated with a rise during post-implementation (Post) (1), a reduction to below pre-implementation during Post (2) and a slight rise to similar pre levels during Post (3).​  ​There has been a reduction in speed across all sites following implementation which is most apparent immediately post-implementation during Post (1) ​  ​The initial data suggest the scheme has been particularly successful at Site 3 with over 50% of vehicles travelling below 25mph from 7am during an average weekday (Monday- Friday). ​  Site 4 Northbound shows a significant reduction in speed, although speeds still remain high. ​  Site 2 shows little change post implementation. |

|  |
| --- |
| **St Dogmaels** |
| Map of St. Dogmaels noting traffic volumes |
| There was a significant increase in traffic volume for Sites 2 and 3.​  ​  There was limited change in traffic volume for Site 1 which demonstrates the limited changes in speed pre and post implementation. ​  ​  All sites show a reduction in vehicles travelling over 25mph with Site 3 Southbound recording the lowest percentage of vehicles over 25mph and Site 2 Eastbound recording the largest reduction.  ​  ​  The scheme has been successful in reducing average speeds at all sites with the exception of site 2. |
| **Llanelli North** |
| Across all sites there was approximately a 3% increase in the total volume of traffic and a 30% decrease in the volume of traffic travelling over 25mph.  Overall, the scheme has been successful in speed reductions in all seven sites, in particular site 2 and 5. |

Pedestrian monitoring will also take place at the following locations:

* Abergavenny, Monmouthshire
* Gilwern, Monmouthshire
* Buckley, Flintshire
* Mold, Flintshire
* Maes y Coed Road, Cardiff; and
* Excalibur Drive, Cardiff

*Exceptions*

It will not be appropriate to place a speed limit of 20mph on all existing 30mph roads. On well-engineered routes that are principal corridors for movement, where there is little frontage development or community activity and / or where pedestrians and cyclists do not need to mix with motor vehicles it will often be appropriate to retain the existing limit. If the roads are restricted 30mph roads, such roads need to be made exceptions to the default limit of 20mph and a speed limit order will be required to increase the speed limit to 30mph. As with all speed limits, 30mph exceptions could also be part-time if the local authority considered this to be appropriate.

The process by which exceptions should be identified by local authorities is outlined in Figure 3.

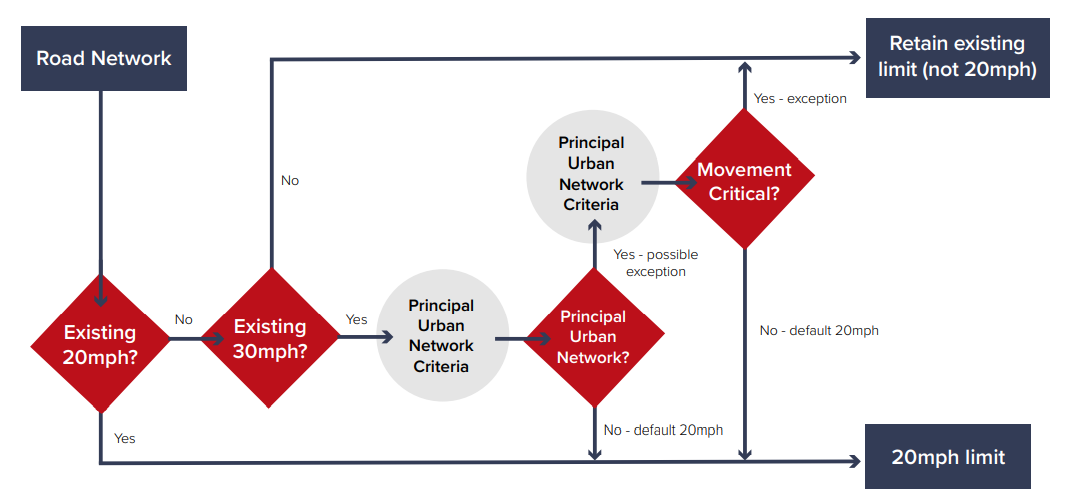


Figure 3 Exceptions Process (Source: Task Force Group Final Report12)

The starting point of the exceptions process has been to view the road network across each local authority area. At the first decision point all existing 20mph limits and zones were identified, including any that are part-time. These should normally be retained as 20mph limits without the need for further review. It has only been necessary for local authorities to consider roads that are currently 30mph restricted roads. Existing speed limits of above 30mph will not be affected by the proposed speed limit change, although it may be necessary to introduce short lengths of 30mph speed limits on roads that lead directly into 20mph limit areas and are currently operating at a speed limit higher than 30mph12.

The 20mph exception process has included a number of PSGA datasets to be used including OS MasterMap Highways, Address Base, OS Speed Limits layer and National Street Gazetteer to identify roads that are out of scope if they do not appear as a publicly maintained highways or street.

A set of criteria has been developed to identify the ‘Principal Urban Network’ (PUN), as a sub-set of the 30mph roads in a local authority area, on the basis that the 20mph limit should normally be applied to all other roads. The PUN in each area has then been assessed in greater detail to determine which sections, if any, should be made exceptions from the default 20mph limit. The approach has considered both ‘Movement’ and ‘Place’ factors for each section of the network12.

Transport for Wales undertook an initial analysis of the proportions of different speed limits currently on the Welsh road network, and the proportions once the 20mph speed limit policy has been fully implemented, based on the current understanding of exceptions that will be applied across different areas. (We note that the process of consultation with local authorities with regard to exceptions is ongoing, therefore the analysis is not yet final). The results, summarised in the table below, illustrate that the policy is expected to increase the proportion of roads falling under a 20mph speed limit from 2.5% to 38.3% of the total Welsh road network in km terms.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Existing | | 20mph policy | |
|  | **km** | **%** | **km** | **%** |
| 20mph | 870 | 2.5% | 13,405 | 38.3% |
| 30mph | 13,085 | 37.4% | 550 | 1.6% |
| 40mph | 825 | 2.4% | 825 | 2.4% |
| 50mph | 450 | 1.3% | 450 | 1.3% |
| 60mph | 19,208 | 54.9% | 19,208 | 54.9% |
| 70mph | 578 | 1.7% | 578 | 1.7% |
|  | **35,016** |  | **35,016** |  |

Source: Transport for Wales (25 February 2021)

*Enforcement*

Currently GoSafe (the Welsh Road Casualty Reduction Partnership) carries out speed limit enforcement in Wales using fixed and mobile speed cameras. GoSafe and their agreed objectives support the Welsh Government’s policy intention to introduce a default 20mph speed limit and are currently working in collaboration with the Welsh Government and partners to develop an enforcement plan. It is anticipated the same approach to enforcement will be taken for a 20mph speed limit as would be for a 30mph speed limit, with the potential for additional costs associated with community speed watch, education and costs for speed camera equipment. As such, once the enforcement plan has been developed an updated impact assessment could be carried out to reflect any additional details which may emerge.

* 1. **The case for the introduction of 20mph speed limits**

Overall, the introduction of a default 20mph speed limit on Wales’ restricted roads presents opportunities to deliver the following benefits:

1. **Safer streets**: There is overwhelming evidence that lower speeds results in fewer collisions and reduced severity of collisions and injuries. In the Bristol 20mph study[[38]](#footnote-39), over the period of reduced speed implementation, there was a reduction in the number of fatal, serious and slight injuries from road traffic collisions, equating to an estimated cost saving of over £15m per year.[[39]](#footnote-40)
2. **Connected Communities**: Reduced speed limits create more attractive and safer environments for walking and cycling which encourages people to engage with their local communities in ways that are not possible when only travelling by car.
3. **Equality of access to community facilities and services**: As residential areas become safer through reduced road traffic speeds, a wider spectrum of people are likely to benefit from improved access. For example, people who may feel nervous around traffic such as older people, children and those with mobility impairments are more likely to feel safer where speeds are lower.
4. **Greater participation in active travel**: Active travel is good for people’s mental and physical health as it increases a person’s overall activity levels, whilst also producing more cohesive and safe communities for people to live, work and socialise in. Reducing traffic speeds is likely to increase participation in active travel as people perceive their environments to be safer for these activities.
5. **Improved amenity/environment**: Reduced traffic speeds lead to improved conditions for local residents as traffic flows more smoothly, noise levels are reduced and vehicle emissions potentially fall. Whilst more evidence is needed to support the relationship between 20mph traffic speed and reduced emissions, some studies have demonstrated a slight improvement.[[40]](#footnote-41)

*Doing nothing*

If a ‘do-nothing’ approach was taken, assuming a continuation of the trends relating to KSI incidents (as outlined in Section 1.1 above) it is considered the number of KSI on Welsh Roads would reduce slowly over time. However, such a decline would likely be at a lower rate than if the default 20mph policy were to be introduced. For forecasts of the potential KSI reductions resulting from the policy, please refer to the RIA document. In addition, negative public perceptions of road safety would be likely to remain and other benefits resulting from reduced traffic speeds such as more pleasant walking and cycling environments would also not be realised as easily.

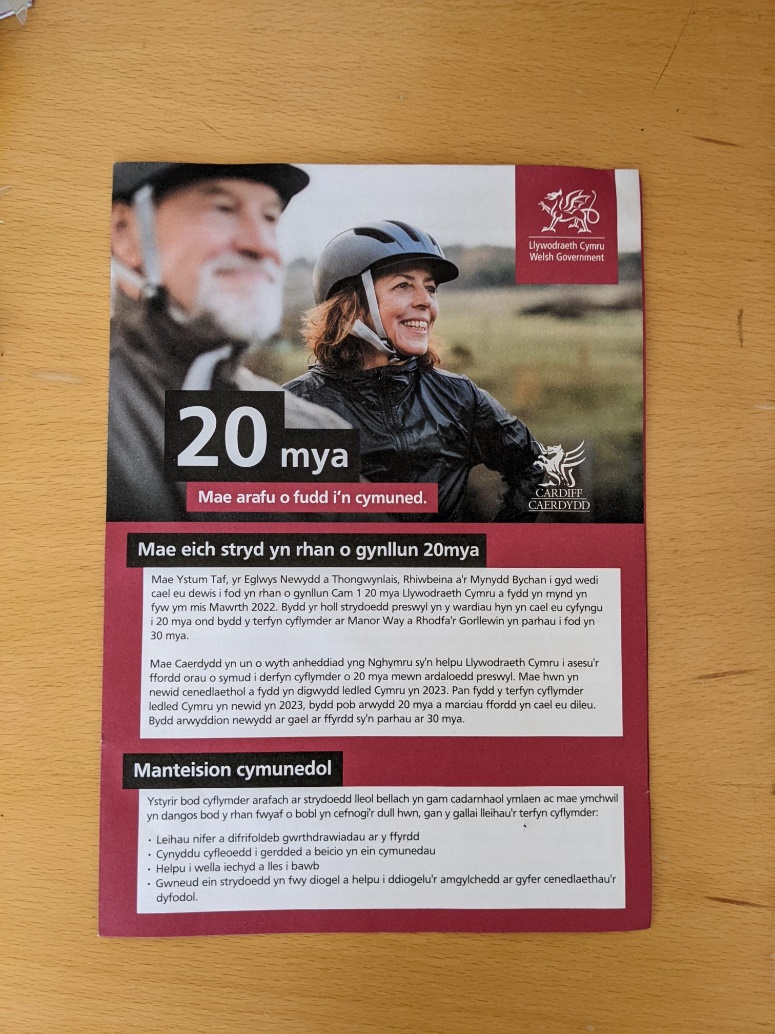
**1.5. Collaboration and involvement**

Stakeholder and public engagement

In the Well-being of Future Generations (Wales) Act 2015, ‘involvement’ is one of the five ways of working identified. Involving people with an interest in achieving the well-being goals and ensuring that those people reflect the diversity of the area which the body serves will help to create a policy which is in the interest of Welsh people, communities and the Welsh environment.

The 20mph Task Force Group recommended that residents in the eight Phase 1 settlements within Phase 1 should be engaged with. This will form a key part of the Welsh Government cooperation with the Phase 1 local authorities, who are committed to wider 20mph limits and are willing to work with Welsh Government on developing the guidance and tools needed for Wales as a whole.

In regard to the communications and marketing strategy, the 20mph Task Force Group also highlighted the need for close integration of campaigns with extensive community engagement, led by local government and steered by local consultations. An example of local communication is the leaflet delivered by Cardiff Council to local residents in the Cardiff North Phase 1 pilot area (implemented in March 2022), depicted overleaf.



During Phase 2 of the 20mph programme (up to September 2023), it is proposed that warm-up communications and engagement by local authorities, backed by the national pre-implementation campaign will begin before the legislation is in place. This will lead into more detailed engagement on draft speed limit maps and the formal consultation process for making speed limit orders. Local authorities will also engage with stakeholders regarding exceptions to the default 20mph speed limit.

An overview of the consultation done to date is set out in the sections that follow.

*Traffic Orders and 20mph Public Attitudes Survey*

In November 2020 the Welsh Government carried out a survey to assess public attitudes towards introducing a 20mph default speed on restricted roads in Wales. The survey was conducted with a sample of 1002 adults aged 16 and over reflecting the Welsh population in terms of key demographic characteristics. The results from the survey are outlined below[[41]](#footnote-42).

* Around three in ten Welsh adults who responded to the survey (31%) had spontaneous concerns about local roads and road safety and getting about where they lived. This rose to almost four in ten (38%) of those responding with a long-term limiting illness, health problem or impairment. Of those who had concerns about their local roads, 16% stated they had a concern with speeding traffic.
* Almost seven in ten Welsh adults (68%) were very or fairly concerned about cars or other vehicles driving too fast generally (rising to 73% of those with children aged under 16 in their household)
* Over six in ten respondents (64%) were very / fairly concerned about cars or other vehicles driving too fast near schools (rising to 72% of those with children in their household)
* Almost half of respondents overall (49%) were very / fairly concerned that roads were not safe for cyclists (rising to 67% of those who cycle regularly for local journeys).
* Most adults who responded to the survey (61%) were content with the current speed limit for their street, while around a third (34%) were not. The proportion of respondents saying that they did not feel their street had the right speed limit rose to 44% where the current speed limit was 30 mph, and fell to 14% where the current speed limit was 20 mph. When those respondents who did not feel their street had the right speed limit were asked what they would like it to be, over nine in ten of those who would like to see a change (92%) spontaneously suggested 20 mph or lower.
* 80% of Welsh adults who responded to the survey said they were in favour of the proposal to reduce the speed limit from 30mph to 20mph in residential communities across Wales. Over half (54%) were strongly in favour and 17% were against the proposal.
* Reasons given by those respondents who were against the reduction in speed limit to 20mph include considering 20mph to be too slow (18%), it would cause congestion (15%), it was only necessary in certain areas (17%) and there was no need for the reduction (17%).
* For reasons of supporting the 20mph speed limit, 72% of respondents said it would make it safer for pedestrians, 67% said it would mean fewer serious collisions on the roads, and 60% aid it would mean children can play more safely.
* One in three Welsh adults who responded to the survey said that 20 mph speed limits would make them more likely to walk more, while around one in five (22%) said that they would be more likely to cycle more. The proportions of respondents who said they would be less likely to walk or cycle more if the speed limit were 20 mph were much smaller (at 5% and 7% respectively). In terms of driving, 11% said they would be more likely to drive more if the speed limit were 20 mph, while a similar proportion (9%) said they would be less likely to drive more in this situation.
* The survey found that enforcement is regarded by those responding to the survey as crucial to the success of the new policy, with seven in ten adults responding feeling there needs to be proper enforcement by the policy for 20mph speed limits to work.

*Technical workshop meetings*

Two workshop meetings were held on the 7th and 9th of September 2021 with a number of stakeholders, including:

* Welsh Local Government Association
* Public Health Wales
* Vale of Glamorgan Council
* Sustrans
* University of the West of England and other academics
* Guide Dogs Cymru
* 20s Plenty.

The points raised within both workshops are outlined below:

* **Driver behaviour:** It was noted that the proposal could lead to a reduction in road safety due to driver aggression and frustration. As such it was recommended that appropriate enforcement and prevention is introduced including signage, community awareness and promotion, and police enforcement. To ensure drivers comply with the proposed change, emphasis was put on ensuring drivers understand the benefits of introducing a 20mph default speed limit.
* **Volume of traffic:**The volume of traffic was noted as a problem which also prevents the uptake of active travel. It was stated a large volume of traffic creates an unpleasant environment which is intimidating to walkers and cyclists.
* **Public Transport:**It was agreed that the proposed change would bring about benefits for public transport as the urban environment would become more pleasant meaning people will be more inclined to wait at bus stops and complete their first and last mile using active travel modes. However, it was also highlighted that there may be the potential for bus journeys to be longer which could impact the bus timetabling. In Bristol, the bus company withdrew an objection to the 20mph speed limits programme after the company found that the biggest delay was boarding time. This has largely been overcome with e-ticketing which enables many people to board simply by touching in as they board.
* **Air Quality:**It was recognised that there is limited evidence around the extent to which reduced driving speeds resulting from a 20mph speed limit would affect vehicular CO2 and other emissions, it was stated that air quality is more likely to be a function of congestion and therefore there needs to be a reduction in the volume of cars of the road. Air quality is also a function of how the car is being driven and therefore advanced drivers who drive more smoothly reduce air pollution due to less acceleration and breakage. It was also highlighted that due to air pollution not adhering to geographical boundaries any method to quantify air quality benefits specifically attributable to the 20mph limit would be challenging.
* **Signage:**It was recommended that no further physical traffic calming measures should be implemented in conjunction with the introduction of the 20mph limit.
* **Biodiversity:** While there is limited evidence, it was agreed that a reduction in vehicle speed and volume of traffic on the roads could be advantageous for biodiversity.
* **Noise:** It was stated that the adoption of a 20mph speed limit would reduce noise pollution from car engines and tyres although this was not quantified. (Evidence associated with noise-related impacts of the policy is presented in section 2.5).
* **Disabled people:** Concerns were raised that the policy proposals do not mention measures that will be needed to warn disabled pedestrians of potential changes to physical infrastructure, which local authorities may choose to deliver in conjunction
* with the 20mph zones, e.g. alterations to pavement heights / layouts (noting that such measures do not form a direct part of the 20mph policy proposals). Concerns were raised that routine measures used to reduce the speed of traffic can create problems for pedestrians who are blind or have visual impairments. Guide Dogs Cymru recommend that if junctions are tabled, warning corduroy paving is installed rather than blister tactile at the mouth of the junction so that vision impaired people are warned not to cross into traffic.   If blister tactile is used, the tail must extend to the building line, and the front edge should be aligned so as to encourage a straight crossing, with the tactile paving on the opposite side of the road lined up to reassure the individual that they have “landed” in the direction of travel that takes them straight on.It was stated the use of colour contrast in paving treatments to denote missing kerbs is of no use to blind people, nor is signage, so hard engineering measures are important to maximise blind / visually impaired people’s safety and to support independent orientation.
* **Social Cohesion**: Stakeholders stated there is a need for a society shift not an engineering shift and as such soft measures such as bicycle training (already offered in some Welsh schools)[[42]](#footnote-43) should be implemented more widely to encourage people to cycle. It was highlighted that women predominately walk children to school so are more at risk (than men) of being involved in a collision. Generally, older people can take longer to cross the road[[43]](#footnote-44) and were noted as not wanting to walk to local facilities if it takes them longer and the roads are not safe.

*20mph Public Consultation*

A public consultation ran between July 2021 until September 2021 to seek views on the proposal to reduce the default speed limit to 20mph. A total of 5,607 public responses were analysed in addition to responses from a number of organisations and groups. The sample for the consultation was self-selecting and as a result, some bias may be inevitable in such surveys.

Looking at the responses, it was found the majority of respondents were not in favour of the proposals with 46% considering a reduction in speed limit is needed, 51% stating there is no need and 3% either did not know or did not answer. However, the majority of respondents were concerned (52% were very concerned and 22% were fairly concerned) about children being involved in a road collision. Furthermore, one in three respondents stated they would walk,[[44]](#footnote-45) cycle or scooter more if a 20mph speed limit were introduced, with two in three stating they would not. Some concerns were raised about the proposal including increased journey times, congestion and driver annoyance.

A majority of the organisations responding to the consultation stated they were in support of the proposal. Organisations highlighted that they currently have concerns with vehicles driving too fast particularly near schools and in areas with many pedestrians. The main reasons for supporting the change were that reducing vehicle speeds improves road safety and reduces the risk of collisions and serious injury / death; it improves the safety of residents, communities and especially children and their ability to play; it supports and promotes active travel, by encouraging more walking and cycling; it creates more liveable neighbourhoods and improves community cohesion. It was also highlighted that linked to the proposal are the benefits for public health, including reducing mental health problems such as loneliness and isolation and increasing physical activity rates. A reduction in air pollution and noise pollution and the economic benefits for local high streets by increasing footfall and spend were also noted.

Organisations not in favour of the proposal expressed the view that blanket changes from 30mph to 20mph are not an effective tool to reduce casualties and encourage active travel. There was also a concern that the change would add to adverse climate change and that it might lead to an unintended consequence of children not taking as much care when crossing the road as currently (where the speed limit is 30mph).

The Welsh Local Government Association (WLGA) raised a key concern about the proposal’s impact on Welsh local authorities and the resources, timescales, costs and enforcement of the proposal. The points raised were as follows:

**Review of exceptions map**: Local authorities will be required to review the exceptions map and undertake consultation on them. Due to the need for local knowledge, hiring external consultants would not be suitable option. It is stated there is a lack of suitable personnel to undertake this task including a lack of road engineers, labour shortages, material delays and cost inflation.

**Traffic Regulation Orders (TROs)**: A number of roads in urban areas have street lighting but would not be suitable for 20mph speed limit. The WLGA highlighted that to avoid a fragmented approach, the existing TRO would need to be revoked and new ones would need to be made. Some local authorities’ TROs are not digitally mapped and as such a lot of research would be required with the resources not being available to do so. Local authorities are also required to advertise each TRO in local newspapers which would add to the cost. Each TRO is open to objection which could impact on the timescales of the proposed implementation date.

**Compliance/enforcement**: It was stated that local authorities should have access to all the tools available to support enforcement as in certain areas such as ribbon settlements compliance could be a problem, especially at non-peak times.

**Recommendations**: The WLGA highlighted the importance that local members are informed and supportive of the initiative, it was also stated that the Welsh Government has not informed local authorities of any further detail of the level of financial resources available to local authorities.

Appendix H outlines the responses received to the public consultation and that are relevant to the assessments within this IIA.

*Children in Wales: Children and Young people’s focus Group Consultation: Reducing Speed Limit to 20mph on Restricted Roads.*

A focus group was conducted by Children in Wales with the aim to consider the views of children and young people on the proposal. Four young people attended the focus group and it is therefore not representative of the wider population. However, the focus groups allowed insight to be gained into the impact the proposal could have on children and young people. The following points were raised[[45]](#footnote-46):

* One person felt that vehicles travel faster than the speed limit and shared the experience of living in an area with 5 schools. It was stated a 20mph speed limit would be preferred in this area however stated other deterrent may be needed as the 20mph restriction alone may not be enough to address some of the issues that were observed.
* There was concern the proposals will increase journey time.
* One person stated they did not feel safe cycling on local roads due to the speed of cars.
* It was considered the proposals will make a difference to road safety and create a safer cycling environment.
* Issues which were raised included noise and the vibrations of vehicles, cars speeding and squeaking when turning in addition to children not looking when crossing the road.
* It was highlighted that cars on country roads are quieter but travel faster and do not slow down when they pass pedestrians.
* Two group members stated they would walk, drive, cycle/scoot and use public transport more if vehicles travelled more slowly on the roads.
* It was considered that most people do not follow the road rules and follow speed limits.
* One person said a 20mph speed limit is not needed on all residential streets, however they are appropriate on roads close to schools.
* Overall, the key issues highlighted are that communities should feel safer and happier and that multiple strategies need to be considered in addition to introducing a 20mph speed limit.

**1.6. Costs and savings**

An overview of the estimated costs and savings associated with the 20mph policy is being prepared as part of the Regulatory Impact Assessment (RIA), which is being prepared in parallel to this IIA (as noted in section 1.7 below). Please refer to the RIA document for analysis of the costs and savings of the 20mph policy.

**1.7. Mechanism**

A Regulatory Impact Assessment (RIA) has been undertaken for the proposal which considers the options being considered, and the cost benefit analysis of the different options. This provides a further understanding the impact of proposed policies and other actions on businesses, the public and individuals. The implications of the proposals on local government and other public bodies are also set out in the RIA.

Note: the first draft version of the RIA was issued to the Welsh Government on 5 May 2022.[[46]](#footnote-47)

# Section 2. What will be the effect on social well-being?

* 1. **People and Communities**

People and communities in Wales are at the heart of the Well-being of Future Generations (Wales) Act 2015, and therefore it is important to consider the social impacts the adoption of a default 20mph speed limit will have. This section draws on findings from the full impact assessments included in the Annexes as well as additional information which is referenced as appropriate.

Road safety is one of the major drivers for change in the implementation of a 20mph speed limit. The following statistics are relevant to the assessment of effects on social well-being:

1. The majority of those in employment in Wales drive to work by car or van (38.4%), 5.7% travel to work on foot, whilst 2.7% commute by bus.[[47]](#footnote-48)
2. In 2018, 1,137 people were killed or seriously injured on Wales’ roads, of which 80 were children.[[48]](#footnote-49)
3. Pedestrian fatality rates per million population are particularly high for those age 75 and over.[[49]](#footnote-50)
4. Of all casualties caused by road collisions in Wales 61.6% were male and 38.4% were female.[[50]](#footnote-51)

The evidence indicates that the introduction of a 20mph speed limit will help reduce vehicle speeds which in turn would reduce the number of injuries on Welsh roads. The Wales Transport Strategy highlights the need for a 20mph default speed limit to reduce traffic casualties, make walking and cycling safer and more attractive and contribute to the well-being of people and communities.

A literature review in 2017 looking at the effect of 20mph zones and limits on health and well-being in Wales[[51]](#footnote-52) concluded that if all current 30mph limits in Wales were reduced to a 20mph limit, 6-10 lives would be saved, and 1,200-2,000 casualties would be avoided each year, with a value of prevention of £58m-£94m.

The road safety benefits of reducing speeds in urban areas were recognised in February 2020 at the Third Global Ministerial Conference on Road Safety, which adopted the resolution to:

“*Focus on speed management, including the strengthening of law enforcement to prevent speeding and mandate a maximum road travel safety speed of 30 km/h (~20mph) in areas where vulnerable road users and vehicles mix in a frequent and planned manner, except where strong evidence exists that higher speeds are safe, noting that efforts to reduce speed in general will have a beneficial impact on air quality and climate change, as well as being vital to reduce road traffic deaths and injuries[[52]](#footnote-53).”*

According to Poulter and McKenna (2006) speeding traffic was rated as the most serious problem when compared to other antisocial behaviours that have an adverse impact on people’s lives[[53]](#footnote-54). This is pertinent to Wales as in 2019, out of all fixed penalty notices issued, 81% related to speed limit offences. Speed limit offences also increased by 10% between 2018 and 2019[[54]](#footnote-55).

At an international level the General Assembly of United Nations has recognised that efforts to reduce road speed are vital to reducing traffic deaths and injuries[[55]](#footnote-56). Safer streets also contribute to the independent mobility of children, which can influence active travel choices a person makes throughout their lives. In surveys of children’s school travel mode undertaken repeatedly across the UK the top concern of parents/guardians is the fear of motor traffic[[56]](#footnote-57). Therefore, reduced speeds could result in changes in perceptions of safety, resulting in more children being given the independence to walk or cycle to school.

The Welsh Government aims to promote a shift towards active travel which is accessible to all and contributes to liveable and sustainable communities. This is backed by a bold ambition set out in ‘Prosperity for All: A low carbon Wales’, for close-to-zero emissions by 2050[[57]](#footnote-58). The 20mph policy supports these aims, by reducing traffic speeds in a manner that is likely to encourage increased levels of active travel (walking and cycling). Active travel is good for people’s mental health and when it replaces a car trip[[58]](#footnote-59), and helps to reduce carbon emissions and improve air quality[[59]](#footnote-60). Viewing the 20mph policy from a wider social well-being perspective, it is expected that slower traffic speeds, by reducing people’s perception of road danger and encouraging the shift in behaviour to active travel for shorter journeys will contribute to more cohesive and safe communities for people to live, work and socialise in.

Although there has been limited research which has focused on active travel as the result of introduction of 20mph speed limits in the UK, evidence from pilot schemes in Bristol and Edinburgh reported positive results, finding small increases in walking and cycling after implementation of 20mph speed limits[[60]](#footnote-61),[[61]](#footnote-62). Within Edinburgh it was found there was a 7% increase in journeys by foot, a 5% increase in journeys by bicycle and a decrease of 3% for journeys by car[[62]](#footnote-63). Results from the pilot scheme in Bristol found a statistically significant reduction in the average traffic speeds of 2.7mph across the city. There had also been a reduction in the number of fatal, serious and slight injuries from road traffic collisions resulting in an estimated cost saving of over £15 million per year. It was found that as a result of the 20mph roll out walking and cycling in Bristol increased, this included children travelling to school and adults travelling to work[[63]](#footnote-64).

A recent study of commuting in Surrey, England has also found that traffic speeds under 20mph are an effective way of encouraging more people to walk and/or cycle to work, thereby increasing levels of active travel.[[64]](#footnote-65)

There is a risk that members of the public in Wales may be unaware of or confused by the change in the default speed limit and continue to adopt the current 30mph speed limit on restricted roads. This will be mitigated through the implementation of a publicity campaign to gain public support and communicate the changes (as discussed in Section 1.5 above), coupled with effective enforcement. Throughout the process of implementation and beyond, overall compliance with the 20mph limit needs to be monitored.

* 1. **Children’s Rights**

In 2011 Wales became the first country in the UK to incorporate children’s rights into domestic law with the introduction of the Rights of Children and Young Persons (Wales) Measure 2011. The Measure embeds consideration of the United Nations Convention on the Rights of the Child (UNCRC) and the optional protocols into Welsh law.

The main duty within the Measure, under Section 1, requires the Welsh Ministers to have due regard to the UNCRC when exercising any of their functions.

The process of having due regard can range from thinking about the impact of decisions on children in the course of day-to-day work, to the formal application of a structured impact assessment tool accompanied by a record of the outcome.

When considering Play Wales’ response to the 20mph consultation, focus group responses, A Charter for Change; Protecting Welsh children from the impact of poverty[[65]](#footnote-66) and additional literature, the adoption of a default 20mph speed limit is expected to result in benefits to children and young people because of a safer road environment (fewer injuries and deaths). This will have a particular benefit in areas of social deprivation that currently experience higher levels of collisions and injuries[[66]](#footnote-67). When taking into consideration literature, relevant research, data and consultation responses it is evident that the policy is also likely to enable increased mobility independence, physical activity, and a decrease in social isolation for children and young people.

A full Children’s Rights Impact Assessment is included in Annex E.

* 1. **Equality**

The Equality Act 2010 places a General Equality Duty on Welsh public authorities to have due regard to the need to eliminate unlawful discrimination, harassment and victimisation, as well as to advance equality of opportunity and to foster good relations between people who share a protected characteristic and those who do not.

The Welsh Government is required to have arrangements for carrying out Equality Impact Assessments across all of the protected characteristics (as defined by the Equality Act): age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation. There is also a socio-economic duty on the Welsh Government to consider how proposals are likely to affect levels of socioeconomic disadvantage of individuals and communities.

An Equality Impact Assessment (EqIA) is the formal, systematic and thorough analysis of a proposal to assess it for the possibility of discrimination, as well as opportunities for it to promote equality and foster good relations. Completing an EqIA is mandatory, and the full assessment is included in Annex D.

The EqIA has been carried out in accordance with the Welsh Government’s Equality Impact Assessment Guidance and best practice. The EqIA considers how the adoption of a default 20mph speed limit promotes equality and the potential positive and negative impacts on each protected characteristic. It also considers how the proposals can improve inequality of outcome for people who experience socio-economic disadvantage therefore meeting the socio-economic duty on the WG. It identifies whether people with protected characteristics/socio-economic disadvantage would be disproportionately or differentially affected by the proposals.

An EqIA has been carried out (see Annex D), and the key points emerging from the analysis undertaken to-date are as follows:

1. The proposed 20mph policy benefits all road users without any one group being disproportionately or differentially adversely affected, however there are likely to be particular benefits for certain groups such as young people, older people or disabled people (see below).
2. The policy will reduce social isolation felt by older people, young people and disabled people.
3. The policy will result in reduced collisions and injuries, benefiting all people, but particularly those statistically more likely to be involved in collisions, including men, older people and younger people.
4. The policy will improve safety and perceptions of safety for everyone, but particularly older people, younger people, and disabled people.
5. The policy will result in a positive impact in areas of social deprivation where statistically more collisions and injuries occur[[67]](#footnote-68).
   1. **Rural Proofing**

The proposal would change the default speed limit for restricted roads within Wales to 20mph, and this includes restricted roads within rural areas. While there are relatively fewer restricted roads in rural areas compared to built-up areas a rural proofing impact assessment has been prepared (presented in Annex F).

Rural proofing is a policy commitment by the Welsh Government. This is underpinned by the principles of social justice, sustainability, equality and fairness, and includes action to improve the quality of life for those residing in Welsh rural communities.

Pertinent to the rural proofing impact assessment is evidence from the St Dogmaels 20mph settlement used as a pilot location during Phase 1 of the 20mph programme (see section 1.3). It was found that the change in speed limit made pedestrians and parents and children travelling to school feel safer, therefore encouraging them to walk, cycle and use public transport. It was also suggested that the introduction of a 20mph speed limit will be very positive for the local high street, and businesses within the surrounding area. It can therefore be concluded from these findings that the proposal has the potential to positively impact rural areas.

Given the current stage of the introduction of a 20mph speed limit, the information available to inform an assessment means that there can only be a high-level consideration of potential effects. However, as monitoring is carried out following implementation of the 20mph speed limit, more information will be available at that stage.

* 1. **Health**

A Health Impact Assessment (HIA) considers how the health and well-being of a population may be affected by a proposed action, be it a policy, programme, plan, project or a change to the organisation or delivery of a public service.

The Public Heath (Wales) Act 2017 places a duty on the Welsh Ministers to make regulations which require public bodies to carry out HIAs in specified circumstances including policies, plans, and programmes which have outcomes of national or major significance, or which have a significant effect at the local level on public health. A HIA is therefore required for this proposed legislation and the full assessment is included in Annex B.

The HIA considers how the 20mph speed limit policy is likely to result in changes to health determinants, i.e. those factors which influence health outcomes within the population. Health determinants considered relevant to the 20mph speed limit policy include:

1. **Neighbourhood amenity** – this includes air quality, levels of noise, road safety and access to green/open space.
2. **Lifestyle/behavioural factors** – this includes how a person chooses to travel and how this affects their levels of physical activity.
3. **Social and community factors** – this includes a person’s sense of social cohesion within a community, how they interact with their neighbours and whether family live close by.

An important step in the HIA is the identification of vulnerable groups within the community who may be particularly impacted by changes in health determinants. Vulnerable groups considered within the HIA include those listed in Table 2 below:

Table 2 Vulnerable Groups

| Group | Sub-group |
| --- | --- |
| Age related groups | Children and young people |
| Older people |
| Income related groups | People on low income |
| Economically inactive |
| Unemployed |
| People who are unable to work due to ill health |
| Groups who suffer discrimination or other social disadvantage | People with physical impairments or learning difficulties |
| Refugee groups |
| People seeking asylum |
| Single parent families |
| Religious groups |
| Lesbian and gay and transgender people |
| Black and minority ethnic groups |
| Geographical groups | People living in areas known to exhibit poor economic and/or health indicators |
| People living in isolated / overpopulated areas |
| People unable to access services and facilities |

It is expected that the default 20mph speed limit will have a number of positive benefits relating to health. These include improvements in road safety with fewer collisions and injuries, increased uptake in levels of walking and cycling, improved social cohesion / reduced isolation and reduced noise, all of which will lead to improved health outcomes.

In summary, the HIA identifies the following health effects in relation to each of the relevant health determinants:

**Neighbourhood amenity –** There is currently limited evidence that 20mph speeds lead to reduced emissions, although the balance of evidence available suggests that slight improvement is likely[[68]](#footnote-69), particularly in relation to particulates. Any improvement in air quality would benefit everyone, but particularly those who are more sensitive to changes in air quality. This includes older people, children, and people living with respiratory health conditions.

Studying noise emissions and related annoyance is important from different points of view because noise affects the quality of the environment, the resident’s satisfaction, as well as their well-being and health. Noise brings on social and behavioural effects, notably annoyance and sleep disturbance. Research also finds that higher motor vehicle speed leads to greater annoyance from vehicle noise[[69]](#footnote-70). From a medical point of view, effects of noise on human health are well documented: hearing impairment, speech intelligibility, physiological disfunctions, mental illness, performance reduction, cardiovascular diseases.[[70]](#footnote-71) Conversely, reduced noise can result in positive changes in physical and mental health outcomes including lowering hypertension. To date, noise impact has not been quantified despite an increasing interest in promoting 20 mph speed limits as an effective way to reduce noise exposure and indications that traffic related noise and air pollution have similar public health impacts. Recent evidence from Brussels, where a city-wide 30km/h default speed limit was introduced on 1 January 2021, suggests a reduction in noise between 1.5 and 4.8 dB(A).[[71]](#footnote-72) Furthermore, similar evidence from Lausanne, Switzerland, suggests that the implementation of 30 km/h speed limits in the city of Lausanne is expected to induce health benefits mainly through a reduction in noise exposure and, to a lesser extent, through a decrease in road traffic casualties. The analysis suggests the city-wide 30 km/h default speed limit would double current noise-related health benefits and prevent a noticeable number of road traffic casualties.[[72]](#footnote-73) This would be particularly beneficial for people who are more sensitive to noise, including children, young people and people who live with a hearing impairment or noise sensitivity.

To gain further insight into the likely impacts of the 20mph policy on noise levels in Wales, the Welsh Government has commissioned a further literature review to be carried out to gauge likely levels of health impacts and strength of the evidence (robustness). During the Covid 19 pandemic, green space that was within walking/cycling reach of communities became highly valued across the country and people were able to enjoy many of these areas with limited intrusion by vehicles. People also expressed more pride in their local areas[[73]](#footnote-74). Whilst not directly related to 20mph speed limit, tangentially, it suggests that lower intensity of vehicles facilitates more enjoyment of green space that exists within communities[[74]](#footnote-75). This would lead to health benefits as more people utilise the green space within their communities, increasing their levels of physical activity[[75]](#footnote-76).

**Lifestyle/behavioural factors** – Physical activity may increase across the population as the modal shift towards more active travel such as walking and cycling is facilitated by reduced speeds and subsequent improvements in safety (both real and perceived). Children in particular are likely to feel safer and have more parental permission to use the streets for play and travel which would increase levels of physical activity.

Although the proposed 20mph speed limit is unlikely, on its own, to provide the extent of cultural change necessary to have a significant effect on physical activity in terms of residents’ and road users’ attitudes to speed and safety, its positive impact could be increased through awareness-raising around physical activity and health along with campaigns to communicate the safety benefits reduced speed limits can bring to communities.

**Social and community factors** - Implementation of a 20mph speed limit has the potential to increase social interaction with neighbours due to more walking and consequent incidental social connectivity, which could lead to health improvements[[76]](#footnote-77). Lower speeds also make access to local shops, services and amenities easier for those who need to cross local roads to access them – in particular, those with mobility challenges such as older people and disabled people.

A full Health Impact Assessment, with more detailed appraisal of the various aspects summarised above, is included as Annex B of this document.

* 1. **Privacy**

A Privacy Impact Assessment (PIA) is an analysis of how personal information, related to groups or individuals, is collected, stored, protected, shared and managed. The PIA is a process for assessing the privacy implications of activities which involve the use, and changes to the use, of personal data.

A policy, project, legislation or ICT project that will process personal data, or require another organisation to do so, must comply with the Data Protection Act 2018 and the Human Rights Act 1998. Formal assessment of privacy impacts is a requirement for all new activities which involve the use of personal data.

During the development of the proposed 20mph policy, studies that draw upon data relating to individuals within the UK and elsewhere have been used to create an evidence base. However, such sources have not involved utilisation of any personal information (i.e., information relating to any individual person or named group as distinct from others), nor are any such information sources being directly used to develop the 20mph within the proposed policy development. Furthermore, no other personal information is currently expected to be needed in order to plan, analyse or implement the policy. Therefore, a privacy impact assessment is not required at this stage.

If at a later stage the implementation of proposed policy involves processing information that could be used to identify individuals, then the Welsh Government must complete a full Privacy Impact Assessment.

* 1. **Summary of effects on social well-being**

Overall, the proposed 20mph policy is anticipated to result in a positive effect on social well-being, people and communities. The key positive impacts of the policy on social well-being are as follows and have been explored in detail within the individual impact assessments set out in Annexes A-F:

* Achievement of all well-being goals defined in the Well-being of Future Generations Act (as discussed in detail in the Overview section of this document) ;
* Increased social interaction and social cohesion within communities; and
* Improved physical and mental health outcomes.

**Evidence Table and Gap Analysis**

The table below summarises selected key evidence used in assessing the proposal’s effect on social well-being and highlights areas for further research.

| Evidence | Source |
| --- | --- |
| Llwybr Newydd: The Wales Transport Strategy | [Llwybr Newydd The Wales Transport Strategy 2021: full strategy (gov.wales)](https://gov.wales/sites/default/files/publications/2021-03/llwybr-newydd-wales-transport-strategy-2021-full-strategy_0.pdf) |
| ONS Census data for method of travel to work | [2011 Census: Detailed characteristics on travel to work and car or van availability for local authorities in England and Wales](https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/methodoftraveltowork) |
| Welsh 20mph Task Force Group | [20mph-task-force-group-report.pdf](file:///C:/Users/Heulwen.Hill/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/VT1Y9V1D/20mph-task-force-group-report.pdf) |
| 20mph Speed Limit Trial Assessment. 2010. Warrington Borough Council | [warrington-executive-report.pdf (wordpress.com)](https://20mphzonesnot20mphlimits.files.wordpress.com/2014/06/warrington-executive-report.pdf) |
| Casualty Data | [Casualties by Local Authority, vehicle type, gender, severity (gov.wales)](https://statswales.gov.wales/Catalogue/Transport/Roads/Road-Accidents/Casualties/numberofcasualties-by-gender-typeofvehicle-severity-date-policeforcearea) |
| The State of Roads in Wales. 2018. National Assembly for Wales | [cr-ld11791-e.pdf (senedd.wales)](https://senedd.wales/laid%20documents/cr-ld11791/cr-ld11791-e.pdf) |
| Literature relating to future of rural bus services | [The future of rural bus services in the UK. 2018](https://bettertransport.org.uk/wp-content/uploads/legacy-files/research-files/The-Future-of-Rural-Bus-Services.pdf) |
| Prosperity for all: a low carbon Wales | <https://gov.wales/sites/default/files/publications/2019-06/low-carbon-delivery-plan_1.pdf> |
| World Health Organisation managing speed | [Managin](https://www.who.int/publications/i/item/managing-speed)[g speed (who.int), 2017.](https://www.who.int/publications/i/item/managing-speed) |
| University of Bristol, 20mph limit evaluation study | [The Bristol Twenty Miles Per Hour Limit Evaluation (BRITE) Study (worktribe.com)](https://uwe-repository.worktribe.com/output/875541)  <https://uwe-repository.worktribe.com/output/875541> |
| Road accident characteristics and socio-economic deprivation | [Abdalla, I., Barker, D., Raeside, R. 1997. Road accident characteristics and socio-economic deprivation. Traffic Engineering and Control, December, 672-676](https://trid.trb.org/view/477291) |
| Children’s Rights Scheme. 2014. Welsh Government | [Arrangements for having due regard to the United Nations Convention on the Rights of the Child (UNCRC) when Welsh Ministers exercise any of their functions.](https://www.assembly.wales/Laid%20Documents/GEN-LD9732%20-%20Children's%20Rights%20Scheme%202014-22042014-255569/gen-ld9732-e-English.pdf) |
| The Public Heath (Wales) Act 2017 | [Public Health (Wales) Act 201](https://www.legislation.gov.uk/anaw/2017/2/contents/enacted)[7 (legislation.gov.uk).](https://www.legislation.gov.uk/anaw/2017/2/contents/enacted) |
| Literature regarding speeding being anti-social | [Poulter, D., McKenna, F. 2007. Is speeding a “real” antisocial behaviour? A comparison with other antisocial; behaviours, Accident Analysis and Prevention, 39: pp. 384-389.](https://www.sciencedirect.com/science/article/abs/pii/S0001457506001503) |
| United Nations- 20 is plenty | General Assembly of United Nations say 20’s plenty, Sept. 2020.  <https://www.20splenty.org/un_says_20splenty> |
| 20mph and road safety | [The state of the evidence on 20mph speed limits with regards to road safety, active travel and air pollution impacts. A literature review of the evidence. Davis, A., 2018.](https://www.gov.wales/sites/default/files/publications/2019-08/the-state-of-the-evidence-on-20mph-speed-limits-with-regards-to-road-safety-active-travel-and-air-pollution-impacts-august-2018.pdf) |
| [Cook, R, Davidson, P & Martin, R 2020, ‘Twenty miles per hour speed zones reduce the danger to pedestrians and cyclists’, BMJ (Clinical research ed.), vol. 368](https://www.bmj.com/content/368/bmj.m453) |
| [Mertens, L. 2017. Built environmental correlates of cycling for transport across Europe. Health & Place, Volume 44, p 35-42.](https://www.sciencedirect.com/science/article/pii/S1353829217300679) |
| [Freitas, E. et al 2012. Traffic noise abatement: How different pavements, vehicle speeds and traffic densities affect annoyance levels. Transportation Research Part D, 17(4) 321-326.](https://www.sciencedirect.com/science/article/abs/pii/S1361920912000144) |
| Evidence required | |
| Further research needed regarding the relationship between active travel uptake and the adoption of a 20mph default speed limit | |
| Further research needed relating to the impacts the proposal has on protected characteristic groups | |

# Section 3. What will be the effect on cultural well-being and the Welsh language?

* 1. **Cultural Well-being**

The Welsh Government’s commitment to supporting cultural well-being is reflected through the Well-being of Future Generations (Wales) Act 2015, which outlines seven national well-being goals, which are considered throughout this IIA and its impact assessments. Of particular relevance is the goal ‘A Wales of vibrant culture and thriving Welsh language’, seeking to create “a society that promotes and protects culture, heritage and the Welsh language, and which encourages people to participate in the arts, and sports and recreation.”

The Active Travel (Wales) Act 2013 places a duty for Welsh local authorities to produce active travel network maps (ATNM) to show existing and future active travel routes, this will assist in creating safe routes in communities and the development of a national cycle network which is essential in promoting active living in towns, cities, villages, and the countryside[[77]](#footnote-78). The adoption of a 20mph default speed limit is likely to support the active travel agenda and encourage people to choose alternative transport options. This will help all groups in society access cultural assets.

In developing proposals for a default 20mph speed limit, the Welsh Government has considered how the policy can support wider aspirations that will shape the future of Welsh transport, such as improved road safety, reduced private car usage and increased levels of active travel. These combined effects are expected to have a positive impact on Welsh communities and culture. By providing safer, quieter and more pedestrian-friendly streets, the 20mph policy will contribute towards the creation and improvement of public spaces. This will help bring greater emphasis to the word ‘street’ as a place that brings out residential roads as places to live, rather than ‘roads’ as places that prioritise car travel.

Given the strong community identity within Wales, the Task Force Group also recommends examining the possibility of explicitly connecting ‘Love our Streets’ with a Welsh identity, encouraging pride in the achievement of being a world leader by changing to default 20mph limits.

The proposed policy will be adopted throughout Wales and the impacts of the proposal will be widespread, but the impact will be greatest in urban and built-up areas.

As well as the direct well-being benefits the 20mph speed limit aims to bring through reduced negative externalities of vehicles use, the policy aims to encourage active travel, which is likely to positively contribute to people’s engagement with the arts, music, literature, and heritage in Wales. As well as encouraging people to travel to / from cultural locations in a sustainable way, people may be more likely to engage with cultural amenities when walking or cycling through an area, compared to when they are driving through. Whilst direct evidence of this is limited at present, this connection could be explored with research.

Overall, the introduction of a 20mph speed limit is anticipated to result in a positive effect on cultural well-being, although the magnitude of this effect is not understood and requires more research to understand the connections between them.

* 1. **Welsh Language**

The Welsh Language (Wales) Measure 2011 was passed by the National Assembly for Wales and was given Royal Assent on 9 February 2011. The Measure gives the Welsh Language official status in Wales, which amongst other things means that the Welsh language should be treated no less favourably than the English language in Wales.

The Measure establishes the role of the Welsh Language Commissioner, who is responsible for promoting and facilitating the use of the Welsh language by increasing its usage in the provision of services and improving the opportunities people have to use it.

Cymraeg 2050[[78]](#footnote-79) is Wales’ national strategy for increasing the number of Welsh speakers to a million by 2050. The Welsh Government is fully committed to the target of a million Welsh speakers including in the Taking Wales Forward programme for government and Prosperity for All: the national strategy[[79]](#footnote-80).

A thriving Welsh language is also part of one of the seven well-being goals set out in the Well-being of Future Generations (Wales) Act 2015, as discussed previously.

The Welsh Government also has a statutory obligation to fully consider the impacts, both positive and negative, of its work on the Welsh language, Welsh speaking people and communities as an essential part of the policy development and delivery process.

It is assumed that for the 20mph policy, bilingual versions of legislation and updated guidance will be provided and the signage, communication and promotion strategy will have regard to those that speak Welsh. Therefore, it is considered that the proposals would not have any direct negative impacts on the Welsh language. This was also highlighted within the St Dogmaels “20s Plenty For Us” consultation response.

Overall, it is considered that the adoption of a default 20mph speed limit could result in a positive impact on the Welsh language. The policy may indirectly encourage increased levels of social and cultural interaction in and around streets that will become quieter, safer and more pedestrian- and cycle-friendly as a consequence of the lower traffic speeds (as discussed in Section 2). This would help Welsh speakers to better connect socially, and to access services, facilities, resources etc. that support Welsh language usage in and around towns and cities. The Future Generations Commissioner for Wales also highlights the need to build resilient communities, culture, and Welsh language through connecting communities and tackling isolation. The adoption of a default 20mph speed limit is expected to create cohesive communities which include Welsh Speaking communities.

A high-level assessment of these impacts, as well as the Welsh Language standards, are set out in the Welsh Language Impact Assessment (Annex C).

It is recommended that impacts of the 20mph policy on Welsh language should be monitored to identify whether the positive impacts identified materialise.

**Evidence Table and Gap Analysis**

The table below summarises selected key evidence used in assessing the 20mph policy’s effect on cultural well-being and the Welsh language, and it highlights areas for further research.

| Evidence | Source |
| --- | --- |
| Llwybr Newydd: The Wales Transport Strategy | [Llwybr Newydd: The Wales Transport Strategy 2021: full strategy (gov.wales)](https://gov.wales/sites/default/files/publications/2021-03/llwybr-newydd-wales-transport-strategy-2021-full-strategy_0.pdf) |
| Future Trends Report. 2017. Welsh Government | <https://gov.wales/future-trends-2017> |
| Light Springs through the Dark: A Vision for Culture in Wales. 2016. Welsh Government | <https://gweddill.gov.wales/docs/drah/publications/161213-a-vision-for-culture-in-wales-en.pdf> |
| Climbing Higher. 2005. Welsh Assembly Government Strategy for Sport & Physical Activity. | <http://sport.wales/media/119237/climbing_higher_e%5b1%5d.pdf> |
| Active Travel Act Guidance. 2021 | [Active Travel Act guidance (gov.wales)](https://gov.wales/sites/default/files/publications/2021-07/active-travel-act-guidance_0.pdf) |
| Cymraeg 2050: A million Welsh speakers. 2017. Welsh Government. | [Cymraeg 2050](https://www.gov.wales/sites/default/files/publications/2018-12/cymraeg-2050-welsh-language-strategy.pdf) |
| Prosperity for All: the national strategy. 2017. Welsh Government | <https://gov.wales/prosperity-all-national-strategy> |
| Evidence required | |
| Further evidence may be required to assess whether people who walk or cycle engage in and with more culture than those who drive. | |
| Further research could be conducted to assess whether the benefits of the proposal will be widespread and felt in rural areas. | |

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# Section 4. What will be the effect on economic well-being?

* 1. **Policy context**

The Welsh Government’s commitment to supporting economic well-being is reflected through the Well-being of Future Generations (Wales) Act 2015, which outlines seven national well-being goals (discussed in detail in the Overview section of this document) that are considered throughout this IIA.

Of particular relevance to this section is the goal ‘A prosperous Wales’, which the Act defines as “*an innovative, productive and low carbon society which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change); and which develops a skilled and well-educated population in an economy which generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through securing decent work*”.

‘Prosperity for All’[[80]](#footnote-81) is Welsh Government’s national economic strategy. The strategy sets out the Government’s ambition to grow the economy whilst reducing inequality.

The expected outcomes from the proposed 20mph policy align with the goals and objectives of the above policies in a number of areas. Changing the default speed limit from 30mph to 20mph is a priority which supports the Welsh government’s vision[[81]](#footnote-82) for walking and cycling to be the natural mode of choice for short everyday journeys, or as part of a longer journey in combination with other sustainable modes. Increased levels of active travel potentially contribute to the economic and social regeneration of urban and rural communities in Wales through improving the environments in these areas. In doing so, this encourages more participation in local economies across society. The health benefits associated with increased active travel alongside the reductions in killed or seriously injured persons involved in road traffic incidents are of further economic benefit through reduced health expenditure and higher levels of participation in the economy from healthier individuals.

Set against this are potential economic disbenefits associated with increased journey times, including the uncertain implications of the potential for increased journey times on the bus and freight sectors.

* 1. **Business, the general public and individuals**

***Individuals including Pedestrians and cyclists***

In 2019, the largest proportion of serious casualties in Wales occurred on roads with a 30mph speed limit – 45% of all serious casualties and 28% of fatalities occurred on roads with a 30mph limit. Since road incidents should be less frequent and severe at speeds of 20mph, previous research[[82]](#footnote-83) has estimated that a 20mph policy could save 6-10 lives a year in Wales and reduce road related casualties by between 1,200 and 2,000 casualties per year.

The expected improvement in road safety brings with it significant economic benefits for individuals. Reduced injuries and fatalities result in reduced pain, grief and suffering in society, and higher economic output through higher labour supply. Table 3 estimates some of the costs related to road traffic incidents. The largest component is willingness to pay which aims to account for the economic value society places on avoiding casualties.

Table 3 TAG Table A 4.1.3: Accident Impacts (Source: Department for Transport, July 2021*[[83]](#footnote-84)*

Table including data on accident Impacts taken from the Department of Transport in July 2021

There is evidence that socio-economically deprived areas[[84]](#footnote-85) suffer more than affluent areas in terms of road incidents. In helping to reduce road incidents in such areas in particular, the 20mph policy will help contribute towards reducing existing and avoidable economic inequalities in society.

The 20mph policy is expected to have a moderately positive impact on the levels of walking and cycling in built-up areas of Wales as has been found in other areas[[85]](#footnote-86). Reduced collisions are expected to improve perceptions of the quality and safety of the road environment for active travel. When asked what difference 20 mph speeds limits would make to them personally in a recent Welsh survey, 35 percent of respondents said they would be more likely to walk and 31 percent said they would be more likely to cycle[[86]](#footnote-87).

Any induced increase in active travel, particularly if diverted from other forms of travel, brings with it further economic benefits through improvements in public health from greater levels of exercise and reduced pollution (air and noise).

***Local businesses***

Higher levels of active travel are also likely to have a moderately positive impact on local businesses. Various studies have found that slower streets which attract more walkers and cyclists see increased footfall and dwell time, resulting in higher spend in local shops and high streets. Living Streets and Just Economics’ reporting on ‘The Pedestrian Pound’ cites case studies from around the world which saw increases in footfall of around 30%, and higher takings by local shops of 20% as a result of traffic calming measures and improvements to public spaces[[87]](#footnote-88).The same study identifies positive impacts on local property prices and rental yields, with increases in land values of between 10% and 30%[[88]](#footnote-89). The study cites examples where walkable neighbourhoods have helped to attract and retain employees (pushing commercial desirability up), with such neighbourhoods often favoured by people looking to buy family homes (again, raising house prices). Some case studies in the report also found that improved walkability, particularly in cities, led to a boost in tourism.

Whilst these case studies and data come from a multitude of traffic calming and streetscape improvements, which go beyond just a reduction in speed limits, the positive correlation between introducing such measures, and the commercial benefits to local businesses and landowners is clear.

***Motor-vehicle users***

There are economic costs associated with reducing speed limits to vehicle drivers, namely increased journey times, as it takes one minute longer to drive a mile at 20mph compared to driving it at 30mph. Given 35 percent of Welsh roads by distance are potentially affected by this policy, the journey time costs cumulated across all car trips and the entire Welsh population could add up to significant value of time costs. However, given the typical (modal) car trip is between two to five miles[[89]](#footnote-90) and that prevailing levels of congestion push average speeds well below the speed limit[[90]](#footnote-91), the time cost is likely to be small on a per trip basis. Studies of other 20mph implementations and modelling exercises indicate a reduction in average speeds of about 1 to 2mph[[91]](#footnote-92) which based on the distances driven on affected roads in Wales results in around a 25-50 second journey time delay per day per person. While the potential cumulated annual economic costs of this is large and potentially as high as £240 million (see RIA), it is recognized that small incremental time savings or losses are of a lower value[[92]](#footnote-93) than larger time impacts, as people are less able to put small time savings to productive use and so this theoretical figure is likely overstated.

Furthermore, in denser urban areas this cost is likely to be slight or negligible as towns and cities are often congested, particularly at peak times, and often average speeds are well below 30mph. As such, a reduction of the speed limit to 20mph might in fact improve traffic flow and reliability by regulating it more in certain areas. A German study from 1990 found that when a 30kph (18.6mph) limit was introduced, changes in driving behaviour were evident with smoother vehicle movements and less braking and acceleration, thereby leading to reduced fuel use[[93]](#footnote-94).

***Impacts on specific business sectors***

Logistics & Freight

The impacts of the proposed 20mph policy on certain sectors or businesses who depend upon vehicle use and efficient movement of traffic for their employment, such as taxi drivers and coach companies, couriers, or transport and logistics companies may be disproportionately higher compared to other businesses. On the one hand, there are likely to be many cases where a lower speed limit results in generally increased journey times due to slower speeds overall. However, as discussed previously, some previous studies have found that in fact at lower speeds, driving behaviour is much smoother, and can in fact increase road capacity[[94]](#footnote-95) reducing the risk to journey times from congestion. This may mean that in some towns and cities which are currently more congested, particularly at peak times, journey times could be improved for commercial vehicles, and the businesses that depend on them.

More data and modelling will be required to fully understand the impact of this proposal on specific industries, as well as ongoing feedback from consultations with industry and other stakeholders. We note that both the Freight Transport Association and the Road Haulage Association were involved in the 20mph Task Force Group and have been able provide input / feedback into the 20mph policy proposals (see section 7.2). In order to engage with taxi operators, in March 2022, the Welsh Government shared a set of specific consultation questions with the GMB union, which represents taxi operators and which distributed the questions to its members. At the time of writing, no responses have yet been received from the GMB union.

Bus and coach services

The potential impacts that the adoption of a default 20mph speed limit would have on public transport services also needs to be examined. Current bus services are normally efficiently planned around resource availability, (i.e. driver and vehicles) and are scheduled to maximise service level, coverage and connectivity. The Confederation of Passenger Transport (CPT) and Coach and Bus Operators Cymru (CABC) have raised concerns about the potential impact the default 20mph speed limit could have on timetabling, and the viability of some services. Any additional time required to operate a route following 20mph implementation could impact on the future delivery, frequency and cost of the services as some are scheduled with only a few minutes layover before departing again. The potential impact of the reduced speed limit will need to be considered carefully by local authorities, including assessing whether exceptions to 20mph limits on routes used by buses as currently proposed are sufficient. More generally, it will be important to ensure no substantially negative impacts on bus service provision arise that could conflict with the WTS priority to drive modal shift to public transport. Ongoing discussions are being held between Welsh Government and these groups to fully understand this potential impact.

***Conclusion***

More data is required from the Welsh Phase 1 schemes and further studies. However, based on the evidence presently available, it is expected that the overall economic impact on business, the general public and individuals will be positive.

* 1. **Public Sector including local government and other public bodies**

The primary public benefit in economic terms as a result of the proposed 20mph policy will arise from moderate healthcare savings and slightly higher tax revenues from any increases in economic activity that stem from improved public health and the regeneration of local economies.

Costs associated with road collisions include the cost of emergency services at the site of the accident, and in the aftermath. The UK Department for Transport ‘Transport Appraisal Guidance’ (TAG) data book suggests that the average casualty-related cost of medical and ambulance assistance at a road accident is £5,397 for a fatal casualty, and £13,921 for a serious casualty. Accident-related costs to the police is £17,042 for a fatal accident, and £1,985 for a serious accident. Other accident-related costs borne by the private sector, and in some cases the taxpayer, include damage to property, and insurance costs and administration.

Introducing and enforcing the scheme will have costs to the public purse, in terms of road signage, communication strategies and programme management. However, these costs are mostly one off and likely to be negligible when compared to the overall benefits in the longer term.

* 1. **Third Sector**

At this stage, it is not anticipated that there will be any disproportionate impacts on those working in the third sector. Members of third sector organisations have been involved in the stakeholder engagement as part of this policy’s development (see section 1.5 of this document for details of collaboration including with third sector entities).

* 1. **Justice Impact**

A Justice Impact Assessment considers the potential impact of any changes to the justice system in England and Wales arising as a result of the provisions of the policy. The items listed in the table below are used to help determine whether or not a proposed policy could impact the justice system.

We include in the table an assessment of the 20mph policy in relation to each of the items.

|  |  |  |
| --- | --- | --- |
| **Item** | **Relevant for 20mph policy** | **Likely Impact of 20mph policy** |
| 1) Creating or amending a criminal offence | No |  |
| 2) Creating or amending a new civil sanction or fixed penalty | No |  |
| 3) Creating a civil order or injunction, breach of which may lead to further proceedings or criminal sanctions | No |  |
| 4) New, or amendments to, sentencing/penalty guideline | No |  |
| 5) New, or amendments to, court or tribunal procedure rules | No |  |
| 6) Result in, create or increase applications to the courts or tribunals, including judicial review | Yes | Slight (based on data obtained thus far) |
| 7) Establish a new tribunal jurisdiction | No |  |
| 8) Require an appeals mechanism | No |  |
| 9) Require enforcement mechanisms for civil debts, civil sanctions or criminal penalties | No |  |
| 10) Result in an increase in the number of adult offenders being committed to custody or probation | No |  |
| 11) Result in an increase in the number of children and young people entering the criminal justice system, or the numbers of children and young people in custody | No |  |
| 12) Result in an increase in the length of custodial sentences | No |  |

As indicated in the table above, the proposed 20mph is expected to have no impact in relation to the majority of the aspects listed, apart from applications to the courts or tribunals (item 6) which have the potential to increase, although the extent of the impact is expected to be slight. As compliance with the new default limit is expected to increase over time this impact will lessen.

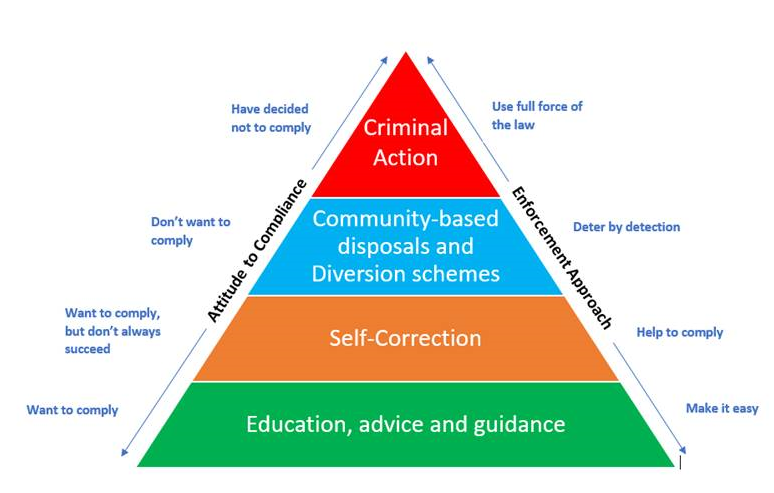
In accordance with the Justice Impact Test Guidance[[95]](#footnote-96), ‘The key questions that policy-makers should ask themselves to determine whether a Justice Impact Assessment is required are:

* Is it possible that the policy will increase or decrease the volume of cases going through the courts or tribunals? and/or
* Will the policy change the way that cases are dealt with by the justice system?

If the answer to either question in future is yes, a justice impact assessment should be completed.

In relation to 20mph, current evidence from the Llanelli North Pilot area has found that only a small share (around 2%) of speeding offences recorded have been at or in excess of 35mph, the guidance for prosecution. 92% of offences have fallen within the speed range appropriate for speed awareness courses (less than 32mph). Furthermore, the Welsh Government will launch a national communication campaign across Wales as part of the national policy roll-out to educate and inform the population about the speed limit change. It is assumed this campaign is likely to further reduce the number of people who would go to court as a result of speeding. The Police and GoSafe will adopt an approach to educate rather than to prosecute in the early stages on implementation, this is outlined in Figure 4 below.

Figure 4 Model of enforcement



Overall, it is concluded that whilst the 20mph policy could have a slight impact on the number of applications to the courts related to speeding tickets, evidence gathered from pilot locations suggests any increase in speeding offences is likely to be slight, and the education-centred approach being taken to policy roll-out and enforcement is also expected to further minimise any potential increase in speeding cases going to court. On this basis, a Justice Impact Assessment is not deemed to be necessary given the information obtained to date.

As further detail is likely to emerge at later stages of the implementation and monitoring stages, a greater understanding of the potential consequences associated with the proposed policy will be gained. If it is determined to be necessary, a Justice Impact assessment could be carried out at that stage.

* 1. **Conclusion**

Overall and taking into consideration the wider economic benefits, the proposed 20mph policy is expected to have a positive effect on economic well-being despite the potential for slightly increased daily average journey times. The benefits will be driven primarily by improved road safety, reducing levels of casualties from collisions (and levels of associated economic cost) as well as a wider uptake of active travel leading to wider health, environmental and social benefits.**\*\* Evidence Table and Gap Analysis \*\***

The table below summarises selected key evidence used in the assessment of impacts on economic well-being, and highlights key gaps.

| Current Evidence | Source |
| --- | --- |
| An illustrated guide to traffic calming. by Dr Carmen Hass-Klau (1990) | <https://trid.trb.org/view/350514> |
| The Royal Society for the Prevention of Accidents, Road Safety factsheet: 20mph Zones and Speed Limits | <https://www.rospa.com/rospaweb/docs/advice-services/road-safety/drivers/20-mph-zone-factsheet.pdf> |
| The Pedestrian Pound: The business case for better streets and places, Living Streets and Just Economics | <https://www.livingstreets.org.uk/media/3890/pedestrian-pound-2018.pdf> |
| Walking and Cycling: the economic benefits, Transport for London | <https://content.tfl.gov.uk/walking-cycling-economic-benefits-summary-pack.pdf> |
| Estimating the monetary value of the deaths prevented from the UK Covid-19 lockdown when it was decided upon – and the value of “flattening the curve” Paul Dolan and Pinar Jenkins, LSE, 25 June 2020 | <https://www.lse.ac.uk/PBS/assets/documents/Estimating-the-monetary-value-of-the-deaths-prevented-from-the-UK-Covid-19-lockdown-when-it-was-decided-upon-and-the-value-of-flattening-the-curve-June-2020.pdf> |
| A scoping study on the valuation of risks to life and health: the monetary value of a life year (VOLY), Newcastle University, Glasgow Caledonian University, University of Birmingham | <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/903543/voly-scoping_study-report.pdf> |
| 2020 Road Accident Data, Stats Wales | <https://statswales.gov.wales/Catalogue/Transport/Roads/Road-Accidents/Accident-Level-Data> |
| Cities Alive: Towards a Walking World, Arup | [Cities Alive: Towards a Walking World](https://www.arup.com/perspectives/publications/research/section/cities-alive-towards-a-walking-world) |
| Transport Appraisal Guidance (TAG) data book, July 2021, Department for Transport | <https://www.gov.uk/government/publications/tag-data-book> |
| Wardman M, Tight M & Page M (2007), "*Factors influencing the propensity to cycle to work*", Leeds: Institute of Transport Studies (ITS), University of Leeds. | <https://www.gov.uk/government/publications/tag-data-book> |
| Wardman M, Hatfield R & Page M (1997), "UK national cycling strategy: Can improved facilities meet the targets?", *Transport Policy* 4(2), 123-133. | <https://www.gov.uk/government/publications/tag-data-book> |
| Hopkinson P & Wardman M (1996), "Evaluating demand for new cycle facilities", *Transport Policy* 3(4), 241-249. | <https://www.gov.uk/government/publications/tag-data-book> |
| Heuman, D. (2005)" *Investment in the Strategic Walks - Economic Evaluation with WAVES"*, Strategic Walk Network. London: Colin Buchanan and Partners Ltd | <https://www.gov.uk/government/publications/tag-data-book> |
| Daniel Heuman, Paul Buchanan, Martin Wedderburn and Rob Sheldon, (2005), *"Valuing Walking: Evaluating Improvements to the Public Realm",* Colin Buchanan and Accent MR | [Transport Analysis Guidance data book](https://www.gov.uk/government/publications/tag-data-book) |
| Justice Impact Test Guidance. 2018. Ministry of Justice. | <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/733337/justice-impact-test-guidance.pdf> |
| Evidence required | |
| * Assessing the impact on traffic flows in pilot areas, and resulting journey times and fuel consumption; * Modelling the likely increase in walking and cycling as a result of the proposal; * Modelling the likely overall mode shift as a result of the proposal; * Analysis on the possible number of preventable deaths as a result of the proposal; * Footfall monitoring and evaluation; * Spend monitoring and evaluation; * Land value monitoring and evaluation; * Air quality and emissions monitoring on continual basis (including pre- and post-policy roll-out); * Sectoral impact modelling and feedback from stakeholders; * Modelling of preventable collisions as a result of the proposal; * Modelling of preventable deaths and illness as a result of air pollution; * Measuring the impact of the proposal on air pollution over the longer-term, e.g. up to 30 years post-implementation; * The relationship between road speeds, higher footfall, and crime prevention; * The impact of improved walking and cycling environments on commuting patterns and labour market catchments; and * The costs of the programme. | |
|  | |

# Section 5. What will be the effect on environmental well-being?

* 1. **Natural Resources**

This part of the IIA focuses on the potential impacts of the proposed 20mph policy on environmental well-being, beginning with an assessment of natural resources impacts.

The assessment is rooted in the Welsh Government’s commitment to supporting environmental well-being, reflected in the Well-being of Future Generations (Wales) Act 2015. This outlines seven national well-being goals, which are considered throughout this IIA (see section 1.5).

Key to the delivery of the Well-being Goals is Wales’ Natural Resources Policy[[96]](#footnote-97), which focuses on improving the way natural resources are managed and used. It defines the principles for Sustainable Management of Natural Resources (SMNR) and sets out the following three National Priorities, which, when implemented, will help to achieve SMNR:

1. Delivering nature-based solutions
2. Increasing renewable energy and resource efficiency
3. Taking a place-based approach

To evaluate the 20mph default speed limit’s contribution to the three National Priorities, analysis has been carried out in regard to the following:

* The extent to which a 20mph speed limit reduces noise pollution and pollution levels in the air, whilst also enhancing air quality.
* The extent to which a 20mph speed limit can help reduce pressures on natural resources such as through reduced fuel usage.

Prosperity for All: A Low Carbon Wales[[97]](#footnote-98) sets out the Welsh Government’s approach to cut emissions and increase efficiency in a way that maximises wider benefits for Wales, ensuring a fairer and healthier society. It sets out 100 policies and proposals that directly reduce emissions and support the growth of the low carbon economy. One of which (policy 54) highlights the need to consider the potential impact of a 20mph limit in urban areas on vehicle emissions and uptake of active travel[[98]](#footnote-99).

* 1. **Air quality**

The Clean Air Plan for Wales; Healthy Air, Healthy Wales[[99]](#footnote-100) was published in August 2020 and sets targets for improving air quality across Wales. It includes actions for reducing emissions from various sources, such as transport, domestic activities, farming and industry. There is also a long-term target for reducing population exposure to PM2.5 concentrations to meet the World Health Organisation’s (WHO) target of 10μg/m3 as an annual mean. In particular, the Clean Air Plan states the Welsh Government will:

*“Develop a Clean Air Act to enhance existing legislation and bring forward new legislation to deliver air quality improvements in Wales. The aim of the Act will be to deliver this commitment and reduce the burden of poor air quality on human health, our economy, biodiversity and natural environment. The Act could also support wider actions to address the climate emergency.”*

The Welsh Transport Strategy sets out a priority to improve air quality and reduce environmental noise associated with transport. To achieve this the strategy places emphasis on pursuing modal shift, encouraging more active travel, greater use of public transport and low emissions vehicles, and by creating closer links between land-use planning and transport in line with our commitments in the Clean Air Plan for Wales: Healthy Air, Healthy Wales.

Planning Policy Wales Edition 11 sets out land-use and planning policy for Wales. Air quality is predominantly addressed in the Distinctive and Natural Places theme of PPW11. Air quality and soundscape section sets of the importance that air quality has in a positive experience of a place, public health, amenity, and well-being. Specific reference is made to the contribution the planning system should make to achieving a healthier Wales through reducing population exposure to air pollution, whilst also tackling high pollution hotspots. Additionally, preventing the creation of any new or worsening of existing air quality pollution problems is identified as important.

The Future Wales National Plan 2040[[100]](#footnote-101) is a national development framework, setting the direction for development in Wales to 2040. It is a development plan with a strategy for addressing key national priorities through the planning system, including sustaining and developing a vibrant economy, achieving decarbonisation and climate-resilience, developing strong ecosystems and improving the health and well-being of communities.

The framework provides clear direction related to air quality and how that should be managed and improved through existing policy (e.g. Planning Policy Wales) and sets out how air quality should be improved within the regional plans.

Despite growing interest in the issue of emissions, evidence for the effects of 20mph speed limits on air quality is limited, with the findings of relevant studies providing a mixed picture. Existing research suggests that slower speeds have the potential to affect vehicle emissions and air quality, along with CO2 emissions because of a combination of factors from 20mph limits including:

* A reduction in average speed;
* smoother, more consistent driving speed;
* small-scale displacement of traffic; and
* mode shift away from car.

In 2017, a study was undertaken in Wales which modelled impacts of a 20mph speed limit for restricted roads and concluded there would be an overall improvement in air quality[[101]](#footnote-102). However, another study undertaken in 2017[[102]](#footnote-103) found that if all current 30-mph limit roads in Wales became 20mph limits, deaths attributed to nitrogen dioxide (NO2) may increase by 63, and years of life fall by 753 – although the same study identified that deaths attributed to particulates (PM2.5) may decrease by 117 and years life lost by 1,400, meaning that, in net terms, the impact would likely be positive.

Results from the Bristol pilot scheme of implementing sign-only 20mph speed limits suggests that, overall, a smoothing of driving style and cutting out of the acceleration phase from 20mph to 30mph is considered to be beneficial for emissions of harmful pollutants.

The majority of assessments of sign-only 20mph speed limits have been conducted by Imperial College London[[103]](#footnote-104); in a 2013 paper, their team concluded that:

* Emissions of NOx and CO2 are seen to be higher over 20mph drive cycles for petrol cars and generally lower for diesel cars.
* Given the higher contribution of diesel vehicle emissions of NOx, this is a significant result.
* PM10 emission factors are lower for both petrol and diesel over 20mph drive cycles compared to 30mph drive cycles; the exception is vehicles with engines over 2.0 litres in size.

Research reported in the Journal of Epidemiology and Community Health conducted into the possible impact of introducing a 20mph speed limit in Wales, found that it could result in a 12% reduction in gear changes, 14% reduction in braking and 12% reduction on fuel use, reducing transport emissions in residential areas by 12%[[104]](#footnote-105).

Another important aspect to consider is forthcoming changes in the future mix of road vehicles, with a significant reduction expected in both petrol- and diesel-powered vehicles over the next 10 – 20 years, and their replacement with electric or other alternatively-powered vehicles. These changes are likely to lead to major reductions NOx and CO2 emissions. Notwithstanding this, the effects of the 20mph default speed limit on emissions in the interim still require detailed investigation noting the above changes will take time to come into effect and impacts of the 20mph speed limit in the interim still warrant investigation. Furthermore, other pollutants associated with road vehicle use such as brake dust and tyre particles are likely to remain an issue with electric vehicles, therefore the change in speed limit and its effects on all pollutants warrants further investigation in all aspects.

Air quality monitoring will not be carried out across all Phase 1 schemes. However, air quality will be monitored in three areas including Abergavenny, Buckley and Cardiff. Monitoring will be undertaken for a period of at least three months at each settlement. As such once this monitoring has been carried out and data has been collected, the impact assessment could be updated to reflect the findings.

* 1. **Biodiversity**

The Welsh economy along with its population’s health and well-being depends on healthy, resilient ecosystems. Biodiversity is essential to sustaining these ecosystems that provide vital services our lives are dependent on. Where biodiversity is lost and perhaps never fully recovered, it affects the capacity of ecosystems to adapt to changes and disturbances.

Section 6 in Part 1 of the Environment (Wales) Act 2016 introduced an enhanced Biodiversity and Resilience of Ecosystems Duty (the s6 duty) for public authorities (as listed in s6(9) of the Act), including statutory undertakers, in the exercise of functions in relation to Wales. The s6 duty requires that the Welsh Ministers must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems.

Complying with the s6 duty will help the Welsh Government to maximise the contribution to the Well-being goals, particularly the Resilient Wales goal.

In complying with the duty, the Welsh Government and public authorities must have regard to the United Nations Environment Programme Convention on Biological Diversity of 1992.

The Convention is enshrined into Welsh legislation through the Environment (Wales) Act 2016, and the Nature Recovery Action Plan (NRAP) for Wales sets out the commitments and objectives to meet the Convention’s Strategic Goals in Wales.

The NRAP for Wales contains six objectives to reverse the decline of biodiversity which should be used to assess the impacts on biodiversity. They can also help develop and guide actions to comply with the s6 duty. These should be considered as part of the IIA.

To demonstrate compliance with Section 6 of the Environment (Wales) Act 2016, a Biodiversity Impact Assessment has been prepared (see Annex D). However, as further detail is likely to emerge at later stages of the programme, with a greater understanding of the potential consequences associated with any activities then being proposed, an updated assessment could be carried out by the appropriate authority at that stage.

Due to limited research in this area, there is no direct evidence to identify the extent to which a 20mph speed limit could have positive impacts on biodiversity. However, it is likely that positive impacts will arise in the following areas, each of which warrants further investigation / analysis that can be obtained through ongoing monitoring:

**Biodiversity net gain –** It is possible that a 20mph speed limit could make green areas become more valued by the local community, due to residents feeling safer in their community and therefore using these resources more frequently. This could present opportunities for community run gardens, open spaces, woodland or other green spaces to develop which would benefit the local biodiversity whilst also contributing to community cohesion and better health outcomes for the local community. More research in this area is needed to determine if this is likely to be a significant outcome of the policy.

**Traffic patterns and emissions –** Although studies of traffic patterns following a 20mph speed limit implementation provide limited evidence and a mix of results, there are indications that the policy would lead to an increase in active travel and a slight reduction in private motor vehicle use (evident, for example, in feedback received from recent public consultations – see section 1.5). If there is a reduction in emissions because of the speed limit implementation, this may benefit biodiversity through a decrease of nitrogen deposition and other impacts such as reduced noise / other emissions. More research is needed in this area and is likely to be required long term.

* 1. **Climate Change**

On 29th April 2019, the Minister for Environment, Energy and Rural Affairs, Lesley Griffiths AM declared a climate emergency in Wales. The announcement aims to highlight the significance of the recent climate change protests and the evidence from the Intergovernmental Panel on Climate Change (IPCC) Special Report on the impacts of global warming of 1.5°C[[105]](#footnote-106).

The Wales Future Trends Report (2017) identifies the risks to infrastructure from climate change, including the transport network. Climate change could also damage ancient woodlands, coastal areas and other natural assets, which are often key visitor destinations accessed by the transport network[[106]](#footnote-107).

Pertinent to this assessment is the Future Generations Commissioner for Wales’ response to the consultation on the Public Transport White Paper. It was outlined that the Welsh Government needs to seek transport solutions that make the biggest contribution to improving our health, to improving the economic prospects of all our communities, to meeting obligations on climate change and to maintaining and enhancing nature. The 20mph policy represents such a transport solution because (as discussed previously), it is expected to encourage greater levels of walking and cycling in Welsh communities, as well as contributing to reductions in pollution and more pleasant and safe streets – all of which delivery positive benefits in line with Well-Being Goals (see the Overview section of this document for a more detailed discussion of these aspects).

As outlined in the section above, Prosperity for all: A low carbon Wales[[107]](#footnote-108) sets out how Wales aims to meet the first carbon budget (2016-2020) and consequently the 2020 interim target through 100 policies and proposals across Ministerial portfolios. Other Welsh Government legislation and policies as previously referenced also seek to support the reduction of carbon and greenhouse gas emissions.

**5.4a Decarbonisation**

The Environment (Wales) Act 2016 sets a legal target of reducing emissions by a minimum of 80% by 2050 and places a duty on the Welsh Ministers to set a series of interim targets (for 2020, 2030 and 2040) and carbon budgets. The budgets will set limits on the total amount of emissions emitted in Wales over a five-year period, acting as stepping stones and ensuring regular progress is being made towards the long-term target.

The 20mph policy is likely to have positive impacts on the levels of emissions, due to changes in a number of areas. These are outlined below:

* **Land use:** Residents may feel safer and more relaxed in their community due to lower vehicle speeds, and with a better quality local environment facilitated by lower traffic speeds, this is likely to provide improved space for dwelling, walking, cycling and public transport use. At this stage it is not anticipated that there would be significant land use changes as a consequence of the policy. However, further interventions to improve the streetscape could support this 20mph proposal as well as supporting wider regeneration and land use change[[108]](#footnote-109).
* **Transport patterns –** Emissions resulting from transport account for a high proportion of overall carbon emissions. Transport accounted for 16% of Wales’ total emissions in 2017. Over half of all transport emissions are due to car usage. Although vehicles are increasingly efficient, people are also travelling more, so overall sector emissions have changed little since the 1990 baseline[[109]](#footnote-110).

Through the Wales National Transport Strategy[[110]](#footnote-111) and Finance Plan[[111]](#footnote-112) the Welsh Government is promoting a more sustainable road transport network and a modal shift away from roads for people and freight. This will help reduce emissions and the impact transport has on the environment and health. The Welsh Government is committed to improving active travel opportunities and promoting public transport. As discussed previously, the 20mph speed limit proposals contribute towards these objectives by providing a safer, quieter street environment that is more attractive for walking and cycling.

The introduction of a 20mph speed limit could lead to a reduction in carbon emissions through contributing to a modal shift to active transport combined with changing driving styles (less variation in vehicle speed, related acceleration and braking) that results in fewer emissions. This will positively contribute to the Welsh Government’s environmental well-being duties and reduction of emissions. However, there is at present limited evidence associated with the impacts of the reduced speed limit on vehicle emissions, and further analysis is needed.

* **Economic resources –** The adoption of a 20mph speed limit can help fuel savings to be made by encouraging drivers to maintain a consistent speed by reducing accelerating and braking.

**5.4b Adaptation**

The Climate Change Act 2008 places a duty of the Welsh Ministers to lay before the National Assembly for Wales from time to time a report on:

(a) the objectives of the Welsh Ministers in relation to greenhouse gas emissions and the impact of climate change in Wales,

(b) the action that has been taken by the Welsh Ministers and others to deal with such emissions and that impact, and

(c) the future priorities for the Welsh Ministers and others for dealing with such emissions and that impact.

Responding to the above requirements with relation to the impact of climate change comes under the umbrella of Climate Change Adaptation. Adapting to climate change means being prepared for effects such as increased temperatures, stronger winds, rising seas and more rain.

As discussed previously, the 20mph default speed limit in Wales has the potential to reduce greenhouse gas emissions by encouraging a modal shift towards active travel, thereby reducing fuel consumption.

* 1. **Environmental Impact Assessment (EIA)**

Where the impacts of a development have the potential to significantly affect the natural environment, Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations (2017) require that an Environmental Impact Assessment (EIA) must be carried out to determine the significance of these effects. The EIA regulations set out a procedure that must be followed for certain types of projesct before they can be given consent. This helps ensure that the predicted effects, and the scope for reducing them, are understood by the public and the relevant authority.

The proposed 20mph policy would not require an EIA based on 2017 regulations.

**Strategic Environmental Assessment (SEA)**

A Strategic Environmental Assessment applies to plans, programmes and strategies required by legislative, regulatory or administrative provisions, and either subject to preparation and/or adoption at a national, regional or local level, or being prepared by an authority for adoption through a legislative procedure (for example an Act of Parliament or regulation). An SEA is required if the plan, programme or strategy is likely to have an impact in certain key areas – agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, tourism, town and country planning or land use.

To determine whether an SEA is required, consideration is given to the following questions:

1. Is what is being developed either a plan or programme?
2. Will it have implications either for future land-use planning decisions or other development consents?
3. Will it require an assessment under the Habitats Directive or have significant effects on the Environment?

The 20mph speed limit is a policy and therefore not a plan or a programme. The policy also does not have direct implications for future land use planning.

Neither an HRA (See section 5.7 below) or an EIA (see section 5.5 above) is required and therefore no SEA is required.

**5.7 Habitats Regulations Assessment (HRA)**

The purpose of an HRA is to avoid a plan or project having a significant effect on so-called “European sites”, either alone or in combination with other plans of projects. European sites are designated under the Nature Directives as either Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) – collectively known as Natura 2000 (N2K) sites. HRAs also apply to Ramsar wetland sites (designated under the 1971 Ramsar Convention for their internationally important wetlands), candidate SACs (cSAC), proposed Special Protection Areas (pSPA), and proposed and existing European offshore marine sites.

The introduction of a 20mph speed limit would not affect any European designated sitesand does not require a Habitats Regulations Assessment (HRA) by virtue of the Conservation of Habitats and Species Regulations 2010 (Consolidated in 2017).

**\*\* Evidence Table and Gap Analysis \*\***

The table below summarises selected key evidence used in the assessment of impacts on environmental well-being and highlights key gaps.

| Evidence | Source |
| --- | --- |
| Review of 20mph speed limits across the city of Bristol | [Pilkington, P., Bornioli, A., Bray, I., & Bird, E. , (2018). The Bristol 20mph limit evaluation (BRITE) study](https://uwe-repository.worktribe.com/output/875541) |
| Key commitments to improving air quality in Wales | [Welsh Government (2020) The Clean Air Plan for Wales, Healthy Air, Healthy Wales](https://gov.wales/sites/default/files/publications/2020-08/clean-air-plan-for-wales-healthy-air-healthy-wales.pdf) |
| The state of the evidence on 20mph speed limits with regards to road safety, active travel, and air pollution impacts. A literature review of the evidence. | [Dr Adrian L Davis. Adrian Davis Associates. Consultant on Transport & Health. Bristol, UK.](https://gov.wales/sites/default/files/publications/2019-08/the-state-of-the-evidence-on-20mph-speed-limits-with-regards-to-road-safety-active-travel-and-air-pollution-impacts-august-2018.pdf) |
| 20mph research study – exploration into whether 20mph limits could be used to achieve positive impacts on road traffic injuries, air quality and promotion of active travel. | [20mph Research study. Process and Impact Evaluation. Headline Report. November 2018. Report by Atkins, AECOM and Professor Mike Maher (UCL).](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757307/20mph-headline-report.pdf) |
| Summary of outcomes from several collated studies on the impact of 20mph speed limits | [SPICe, The information Centre. The Restricted Roads (20mph Speed Limit) (Scotland) Bill. Evidence on the impact of 20mph Speed Limits. 2nd Review.](https://archive2021.parliament.scot/S5_Rural/Research_evidence_20mph_bILL.pdf) |
| National commitments in relation to transport, air quality and active travel. Data and commitments to environmental protection and climate change | [Future Wales: The National Plan 2040.](https://gov.wales/sites/default/files/publications/2021-02/future-wales-the-national-plan-2040.pdf) |
| Research of evidence to identify the effect of 20mph zones and limits on health and well-being in Wales. Estimation of effect on air quality (in terms of deaths attributed to NO2 and PM2.5). | [Twenty miles per hour speed limits: a sustainable solution to public health problems in Wales’, Journal of Epidemiology and Community Health (1979-), vol. 71, no. 7, pp. 699](https://pubmed.ncbi.nlm.nih.gov/28341623/) |
| An evaluation of the estimated effects on vehicle emissions of a 20mph speed restriction in central London. | [Williams, D (2013); An evaluation of the estimated effects on vehicle emissions of a 20mph speed restriction in central London. Transport and Environment Analysis Group, Centre for Transport Studies, Imperial College London.](https://www.bristol20mph.co.uk/wp-content/uploads/2016/06/speed-restriction-air-quality-report-2013-for-web.pdf) |
| Greenhouse Gas inventories for England, Scotland, Wales & Northern Ireland (1990-2019) | [National Atmospheric Emissions Inventory](https://naei.beis.gov.uk/reports/reports?section_id=4). |
| The vision for the transport section in Wales including targets for active travel, and 20mph pilot study performance tracking | [Llwybr Newydd, The Wales Transport Strategy 2021](https://gov.wales/sites/default/files/publications/2021-03/llwybr-newydd-wales-transport-strategy-2021-full-strategy_0.pdf) |
| Information related to transport improvements made since 2017 and plans for improvements to 2020. Financial commitments to improvements in active travel networks. | [National Transport Finance Plan 2018 Update.](https://gov.wales/national-transport-finance-plan-2018-update) |
| Wales’ commitment to tackling climate change.  Data related to existing transport emissions and targets for achieving transport emission reductions. | [Prosperity for All: A Low Carbon Wales. Welsh Government, 2019.](https://gov.wales/sites/default/files/publications/2019-06/low-carbon-delivery-plan_1.pdf) |
| Welsh Government declaration of a climate emergency (2019). | <https://gov.wales/welsh-government-makes-climate-emergency-declaration> |
| Evidence required | |
| Research into whether biodiversity benefits from people valuing green spaces more as a result of improved neighbourhood quality (from introduction of 20mph limits) | |
| Nitrogen deposition data, and how this is affected by implementation of the 20mph speed limit. NRW are currently doing research impacts from nitrogen deposition. | |
| Air quality data to be gathered once air quality monitoring has been carried out in the three pilot settlements (Buckley, Abergavenny and Cardiff) | |

# Section 6. Record of Full Impact Assessment

The following assessments have been completed as part of this IIA.

|  |  |  |
| --- | --- | --- |
| **Impact Assessment** | **Yes/No** | **Location** |
| Children’s rights | Yes | Appendix E |
| Equality | Yes | Appendix D |
| Socio-economic Duty | Yes | Included within equality IA and section 4 of this IIA |
| Rural Proofing | Yes | Appendix F |
| Health | Yes | Appendix A |
| Privacy | No | N/A |
| Welsh Language | Yes | Appendix B |
| Economic / RIA | Yes | Section 4 of this IIA and separate RIA completed |
| Justice | No | N/A |
| Biodiversity | Yes | Appendix C |
| Climate Change | No | N/A |
| Strategic Environmental Assessment | No | N/A |
| Habitat Regulations Assessment | No | N/A |
| Environmental Impact Assessment | No | N/A |

# Section 7. Conclusion

The implementation of a 20mph default speed limit on restricted roads is a commitment set out in the Welsh Government’s Programme for Government. The current method of introducing 20mph limits is through the introduction of Traffic Regulation Orders, with only approximately 1% of the road network currently subject to a 20mph speed limit. The proposed change will use the powers the Welsh Ministers have under the Road Traffic Regulation Act 1984 to enable a rapid expansion of 20mph in a cost-effective way. The proposal will amend primary legislation to introduce a national default speed limit of 20mph on restricted roads within Wales. However, local authorities will be given the discretion to retain a 30mph speed limit on a restricted road where they deem appropriate.

It is considered the proposed change could have a beneficial impact within Wales. Setting a 20mph limit on most restricted roads is expected to lead to a reduction in road collisions and casualties, and create a more attractive environment to walk and cycle. This will help improve the physical and mental health of local people and communities as well as increase community cohesion – with increases in social interaction also likely to benefit Welsh speaking communities. The policy will also have positive impacts in rural areas, as the 20mph speed will just apply in urban areas but also smaller settlements in rural locations.

To conclude the main part of this IIA, we set out in the sections that follow ways in which the 20mph policy aligns with three of the Key Ways of Working as defined in the Well-being of Future Generations Act[[112]](#footnote-113).

* Integration: Considering how the public body’s well-being objectives may impact upon each of the well-being goals, on their objectives, or on the objectives of other public bodies
* Prevention: How acting to prevent problems occurring or getting worse may help public bodies meet their objectives.
* Involvement: The importance of involving people with an interest in achieving the well-being goals and ensuring that those people reflect the diversity of the area which the body serves.
  1. **Integration**

The proposals could connect and contribute to different public policies, some of which are outlined below, and generate multiple benefits.

1. The Environment (Wales) Act 2016: The proposals could help to reverse the decline in biodiversity in Wales and increase the resilience of its ecosystems through creating an environment which encourages walking and cycling and the use of public transport.
2. Children and Young Person (Wales) Measure 2011: The proposals could assist young people to meet with friends and join groups and clubs and will consider the UNRC principles.
3. Equality Act 2010: The Welsh Government would be acting in accordance with the Public Sector Equality Duty within the Equality Act 2020.
4. The Welsh Language Act 1993: The proposals could have the function to indirectly promote and facilitate the use of the Welsh Language.
5. The Welsh Language (Wales) Measure 2011: Local authorities have a statutory duty to comply with the Welsh Language Standards through the Welsh Language (Wales) Measure 2011.

The proposed change in speed is in line with the sustainable development principle. The seven Well-being Goals and the five ways of working in the Well-being of Future Generations (Wales) Act 2015 outline a clear framework for government decision-making and need to underpin everything we do. The Act prompts us to “show our workings” in the development and implementation of policy and legislation, making clear how the ways of working set out in the Act have been actively applied in order to maximise the contribution across the seven well-being goals and the Welsh Government’s [well-being objectives](https://gov.wales/docs/strategies/170919-wellbeing-statement-en.pdf)[[113]](#footnote-114).

* 1. **Prevention**

The proposals could help support the breaking of negative cycles within Wales such as poverty and poor health and road casualties.

Although the number of personal injury accidents (PIA) is Wales has fallen since 1993, in 2018 some 4000 personal injury accidents were still recorded. Of those collisions that were more serious,1137 people were killed or seriously injured. The largest proportion of these serious or fatal casualties occurred on roads with a 30mph speed limit[[114]](#footnote-115). In 2013 the Welsh Government published its Road Safety Framework which set a series of targets for reduction in the number of people being killed or seriously injured by 2020. These targets were not met.

|  |  |  |
| --- | --- | --- |
| Target Group | Target Reduction | Actual Reduction by 2018 |
| All people | 40% | 19.1% |
| Young people (16-24) | 40% | 44.7% |
| Motorcyclists | 25% | 6.6% |

Lowering the national default speed limit of restricted roads will result in fewer collisions and reduce the severity of collisions and injuries within Wales. Road traffic injuries are also strongly associated with poverty; child pedestrian deaths in deprived neighbourhoods are over four times those in affluent neighbourhoods[[115]](#footnote-116). It is anticipated that reducing speed limits through a 20mph speed limit will help reduce health inequalities.

* 1. **Involvement**

In keeping with the Well-being of Future Generations (Wales) Act and its five ways of working, the Welsh Government has sought to collaborate with organisations though the creation of a Welsh 20mph Task Force Group. Organisations included:

* 20s Plenty for Us
* Confederation of Passenger Transport UK
* Disability Wales
* Federation of Small Businesses
* Freight Transport Association
* Fire and Rescue Service
* GoSafe
* Guide Dogs
* Living Streets
* Local Authority Regional Representatives
* Police
* Public Health Wales
* Road Haulage Association
* Sustrans
* University of the West of England (Bristol)
* Welsh Government
* Welsh Local Government Association

The Wales 20mph Task Force Group was appointed in May 2019 by Lee Waters AM, the Deputy Minister for Economy and Transport. Its role was to identify the outcomes which would be expected from changing the default speed limit for restricted roads in Wales to 20mph; and the practical actions needed to implement this change in the law. Where relevant pertinent issues, statistics and recommendations highlighted within the Task Force Group report have been considered within each of the sections and annexes of this IIA.

The Task Force Group recommends that significant engagement be undertaken with

the eight settlements identified as pilot areas within Phase 1, several pilot authorities, Welsh communities, and local authorities at all phases on the policy programme. All consultation which has currently been carried out is outlined within section 1 and appendix H of this IIA.

In addition, qualitative analysis of individual studies within the UK where a 20mph speed limit has been implemented have been drawn upon to create an evidence base.

* 1. **Summary of Impacts**

A range of impacts have been identified throughout this IIA document with full impact assessments presented in its Annexes A-F. These have considered:

1. What action can the project take to promote biodiversity, equalities, the Welsh language and the other areas covered by the impact assessments;
2. What action can the project take to strengthen its contribution to a particular well-being goal or to contribute to additional goals; and
3. What action can the project take to avoid, reduce or mitigate a negative impact.

Table 2 below helps to summarise the most significant impacts, for the impact groups considered as part of this IIA.

Table 4 Summary of impacts

|  |  |
| --- | --- |
| Biodiversity | |
| Potential impacts:  At this stage of the proposed policy, it is not clear if a 20mph default speed limit would, over time, significantly reduce emissions from vehicle usage. If active travel increases post policy implementation and replaces car usage, then a reduction is carbon emissions and improved air quality is likely.  The proposed policy could benefit local biodiversity as existing green areas could become more valued by the local community | |
| Contribution to the WFGA | **Measures to avoid, reduce or mitigate any negative impacts** |
| Positive contribution towards:   * A Globally Responsible Wales * A Resilient Wales * A Wales of Cohesive Communities | N/A |

|  |  |
| --- | --- |
| Health | |
| Potential impacts  The proposed policy could positively benefit physical and mental health within Wales. The adoption of a default 20mph speed limit could result in increased physical activity due to a potential increase in active travel, reduced social isolation, improved noise and air quality, and improved access to employment and services. | |
| Contribution to the WFGA | **Measures to avoid, reduce or mitigate any negative impacts** |
| Positive contribution towards:   * A Healthier Wales * A prosperous Wales * A Wales of Cohesive Communities | N/A |

|  |  |
| --- | --- |
| Welsh Language | |
| Potential impacts  While the proposed policy does not directly impact Welsh language, it has the potential to have a neutral or slightly beneficially impact on the Welsh Language.  The proposed policy could result in improved social cohesion among Welsh communities including Welsh speaking communities. The creation of an updated policy and legislation as a result of the proposal would ensure that:   1. Those whose first language is Welsh are provided with information in their first language; 2. Those who would prefer to access the information in Welsh could choose do so; and 3. Non-Welsh speakers be provided with the opportunity to read and learn some of the Welsh language. | |
| Contribution to the WFGA | **Measures to avoid, reduce or mitigate any negative impacts** |
| Positive contribution towards:   * A Wales of Vibrant Culture & Thriving Welsh Language * A Wales of Cohesive Communities | Ensuring all communications and signage is provided bilingually. |

|  |  |
| --- | --- |
| Equality | |
| Potential impacts  The evidence available indicates that a 20mph speed limit has positive impacts for some protected characteristic groups and is considered non-specific as a lower speed limit provides a safer environment for all road users.  These groups include race, sexual orientation, marriage and civil partnership, religion or belief, gender reassignment and pregnancy and maternity.  Age: The proposed policy could benefit older and young people through the creation of a safe and secure environment increasing their confidence in individual mobility and decrease social isolation.  Disability: Whilst there is limited evidence / analysis regarding the impact reducing the default speed limit will have on disabled people, it is logical to assume that a reduced default speed limit would result in a positive impact on disabled people due to the creation of a more pleasant street environment, encouraging disabled people to travel.  Sex: Given a higher percentage of males were casualties caused by road collisions than females, people that are male are likely to experience a greater proportion of benefits from the policy more given more road accident casualties were male.  Low-Income households: The Welsh 20mph Task Force Group recognises that road traffic injury is strongly associated with poverty. Reducing speeds through an area-wide 20mph speed limit policy would help reduce road traffic injuries including in places of poverty, indirectly benefiting those in low-income households. | |
| Contribution to the WFGA | **Measures to avoid, reduce or mitigate any negative impacts** |
| Positive contribution towards:   * A More Equal Wales * A Wales of Cohesive Communities * A Prosperous Wales * A Healthier Wales | N/A |

|  |  |
| --- | --- |
| Children’s rights | |
| Potential impacts  The adoption of a default 20mph speed limit is expected to result in benefits to children and young people’s physical and mental health. This is as a result of increased mobility independence, increased physical activity, and a decrease in social isolation with a safer street environment through lower traffic speeds helping to encourage young people to meet with friends and join groups and clubs. | |
| Contribution to the WFGA | **Measures to avoid, reduce or mitigate any negative impacts** |
| Positive contribution towards:   * A Globally Responsible Wales * A Wales of Cohesive Communities * A More Equal Wales * A Healthier Wales | N/A |

|  |  |
| --- | --- |
| Rural proofing | |
| Potential impacts  Currently the adoption of a default 20mph speed limit is expected to result in safer and cleaner roads in both rural and more urban parts of Wales. This is due to the fact that it will be applied to all restricted roads (except where exceptions are applied locally), which can be found across the country, in both urban and rural areas. | |
| Contribution to the WFGA | **Measures to avoid, reduce or mitigate any negative impacts** |
| Positive contribution towards:   * A Wales of Cohesive Communities * A More Equal Wales | N/A |

|  |  |
| --- | --- |
| Economic | |
| Potential impacts  More evidence and modelling is required to determine the overall economic impact of this proposal, but current evidence and studies suggest that in the long term, there will be economic benefits, particularly as a result of reduced healthcare spending from lower numbers of road collision injuries, improved air quality and increased uptake of active travel. | |
| Contribution to the WFGA | **Measures to avoid, reduce or mitigate any negative impacts** |
| Positive contribution towards:   * A Prosperous Wales | N/A |

* 1. **Evidence gaps**

During the development of the IIA a significant volume of literature has been reviewed in order to build an evidence base for the assessment. However, due to the nature of the proposals being relatively novel (particularly in terms of scale), some areas of evidence are limited. Table 5 summarises the evidence gaps identified in each of the preceding sections of the IIA. Where there is a critical need for evidence this has been noted.

Table 5 Overview of evidence required

| Section of IIA | Evidence required |
| --- | --- |
| Section 1 | The potential impacts that the adoption of a default 20mph speed limit would have on public transport services needs to be examined |
| Section 2 | Further research needed regarding the relationship between active travel uptake and the adoption of a 20mph default speed limit |
| Further research needed relating to the impact the proposal will have on protected characteristic groups |
| If a privacy impact assessment is needed at a later stage then research relating to identifying individuals and storing and using personal information in relation to speed enforcement may be needed |
| Section 3 | Further evidence may be required to assess whether people who walk engage in and with more culture than those who drive. |
| Further research could be conducted to assess whether the benefits of the proposal will be widespread and felt in rural areas |
| Section 4 | Assessing the impact on traffic flows in pilot areas, and resulting journey times and fuel consumption |
| Modelling the likely increase in walking and cycling as a result of the proposal |
| Modelling the likely overall mode shift as a result of the proposal |
| Analysis on the possible number of preventable deaths as a result of the proposal |
| Footfall monitoring and evaluation |
| Spend monitoring and evaluation |
| Land value monitoring and evaluation |
| Sectoral impact modelling and feedback from stakeholders. |
| Section 5 | What is the biodiversity net gain from active travel? |
| Nitrogen deposition data, NRW are currently doing research impacts from nitrogen deposition. |
| Biodiversity Impact Assessment | Further evidence is needed regarding the potential impact the adoption of a 20mph speed limit will have on air quality |
| Health Impact Assessment | Evidence linking use of and quality of green space changing following speed reductions on restricted roads. |
| Welsh Language Impact Assessment | There is a lack of data surrounding the direct impacts a 20mph speed limit will have on the Welsh language. |
| There could be more evidence of the links between the Welsh language and creating community cohesion. |
| Equality Impact Assessment | Mapping could be conducted to determine whether accident hotspots in residential areas coincide with local income/ deprived areas |
| Lack of data regarding the impact reducing the default speed limit will have on disabled people |
| Further research could be conducted to determine whether there will always be a neutral impact on protected characteristics such as race, gender, sexual orientation and religion. |
| There is a need to closely monitor the scale of impact a 20mph default speed limit will have on age and low-income households |
| Children’s Rights Impact Assessment | Further research may be required to determine the scale of the impact adopting a 20mph default speed limit has on a children and young people |

**7.6 How will the impact of the proposal be monitored and evaluated as it progresses and when it concludes?**

Given the current phase of the project, the information available to inform the impact assessments within this IIA means that there can only generally be a high-level consideration of potential effects.

However, as further detail is likely to emerge at later phases of the project, with a greater understanding of the potential consequences associated with any changes then being proposed, updated Biodiversity, Health, Equality, Welsh Language, Children’s Rights, Economic and Rural Proofing impact assessments could be carried out, as well as the completion of any additional Impact assessments if appropriate.

There are several themes that should be monitored and evaluated as a minimum, including the impact of any changes on:

1. Children and young people;
2. Older people;
3. People of low incomes or living in poverty;
4. Disabled people;
5. Women and Men;
6. People from Black, Asian or ethnic minority backgrounds;
7. People living in rural communities;
8. People experiencing poor health;
9. Privacy;
10. Welsh Language;
11. Justice;
12. Biodiversity; and
13. Climate Change.

The Welsh Government should consider support from its statistics and research specialists to assist with relevant data collection and analysis[[116]](#footnote-117).

Data collection could also be assisted by utilising open source data[[117]](#footnote-118) and that being collected by others for other but relevant means, for example by the Wales Audit Office and Office of the Future Generations Commissioner for Wales[[118]](#footnote-119).

Benefits management and realisation will be a core component of project management, ensuring that the project achieves the benefits and outcomes it has set out to achieve and that these are maximised and aligned to wider strategic objectives. As benefits are the reason for delivering change, it is important that these are actively managed and that there are clear responsibilities for benefits in order to increase the likelihood of realising and maximising the benefits.

The principle desired outcomes/ benefits from the adoption of a default 20mph speed limit in residential areas are:

* Reduced vehicle speeds, recognising that compliance will increase over a period of some years;
* Less driving for short journeys (under three miles);
* More use of active travel modes – in the main this is walking and cycling but could also include scooting and other new forms of micro-mobility (small wheels), and horse riding in rural areas;
* Continued public support – monitored by Wales-specific repeat attitudinal surveys and testing awareness and understanding; and
* Police public visibility and support for 20mph speed limits

The policy proposal and outcomes will be managed and monitored throughout all phases of the programme and five years after implementation. This will be done with a consistent approach, actively managing potential opportunities and/or needs of the programme.

A change from 30mph to 20mph speed limits takes time to bed-in and that speed compliance and other sought-after changes in behaviour may be limited in the first two years[[119]](#footnote-120). The Monitoring and Evaluation Programme will firstly rely on routinely collected data across all local authorities for the five years up to the intervention. This data will include the minimum of:

* STATS 19 road traffic casualty data which can be analysed by a range of impacts, e.g. on different road users, age groups, and least and most deprived populations
* Speed measurements – 85th percentile and average speeds
* Evidence of changes in travel modes used e.g. for travel to and from schools
* Air quality data collected by local environmental health teams
* Collision and casualty data may also be provided by the Police.

# Full Impact Assessments

This part of the IIA presents a number of detailed full impact assessments, focusing on specific aspects of the proposed 20mph policy.

These comprise the following:

Annex A: Health Impact Assessment

Annex B: Welsh Language Impact Assessment

Annex C: Biodiversity Impact Assessment

Annex D: Equality Impact Assessment

Annex E: Children’s Rights Impact Assessment

Annex F: Rural Proofing Impact Assessment

# Health Impact Assessment

A Health Impact Assessment (HIA) is a process to consider how the health and well-being of a population may be affected by the implementation of a policy, plan or programme. The overarching aim is to ensure that plans, policies and programmes minimise negative, and maximise positive health and well-being impacts. The approach to this HIA is based on the Wales Health Impact Assessment Support Unit (WHIASU) Practical Guide to HIA[[120]](#footnote-121).

*Approach to Health Impact Assessment*

An evidence review has been conducted to provide a high-level commentary on the links between the health determinants (environmental, social and economic factors known to influence health) scoped into the health assessment and the resulting effects on health and well-being. This is based on a review of available primary and secondary literature and aims to provide an overview of the scientific consensus on the types of health outcome associated with impacts on health determinants in relation to the proposed adoption of a 20mph default speed limit.

The assessment is undertaken in a tabular format using an assessment framework based on the scoped health determinants and vulnerable groups identified.

The assessment is split up by each health determinant and guiding questions are used to ensure the assessment considers the wide range of aspects related to that determinant. The assessment is qualitative in nature and identifies whether the impact on each health determinant is positive or negative and which vulnerable groups are most likely to be affected by the health impact.

A commentary is also provided explaining the rationale for the assessment outcome. This commentary will relate to the relevant health issues identified in the population profile and the evidence from the evidence review to provide justification for the assessment.

Where appropriate the HIA makes recommendations for mitigating identified adverse health and well-being effects or enhancing beneficial ones.

It is important to note that the HIA will closely align with other assessments in this IIA which also consider vulnerable groups, such as the Equality Impact Assessment, Children’s Rights Assessment and Rural Proofing Impact Assessment.

For the purpose of the assessment, the study area covers the whole of Wales.

**Vulnerable Groups**

It is important to identify vulnerable groups within the population who may be particularly sensitive to changes in health determinants. The list below sets out what these groups are, including subgroups.

| Group | Sub-group |
| --- | --- |
| Age related groups | Children and young people |
| Older people |
| Income related groups | People on low income |
| Economically inactive |
| Unemployed |
| People who are unable to work due to ill health |
| Groups who suffer discrimination or other social disadvantage | People with physical impairments, health conditions or learning difficulties |
| Refugee groups |
| People seeking asylum |
| Single parent families |
| Religious groups |
| Lesbian and gay and transgender people |
| Black and minority ethnic groups |
| Geographical groups | People living in areas known to exhibit poor economic and/or health indicators |
| People living in isolated/overpopulated areas |
| People unable to access services and facilities |

**Health determinants scoped into the assessment**

Health determinants are those factors which influence health outcomes and can include the social and economic environment, the physical environment or a person’s individual characteristics and behaviours. For the purpose of this assessment, health determinants identified as having the potential to be affected by the proposal include:

* Lifestyle/behaviour factors (active travel and general physical activity levels)
* Social and community influences (social isolation, social cohesion, social networks)
* Neighbourhood amenity (noise, air quality, access to greenspace)

**Evidence Review**

The following section sets out details from the evidence review which provides background on studies undertaken to link health determinants to health outcomes within populations. This understanding between cause and effect is required in order to make an assessment on potential effects resulting from the proposed policy of 20mph speed limits on restricted roads.

**Lifestyle/behaviour factors (e.g. diet, physical activity, substance misuse)**

*Physical activity and active travel*

One of the desired, indirect impacts of the proposal is to make streets feel safer for pedestrians and cyclists to encourage more active travel take up and increase physical activity. This mode shift will be more successful if other streetscape improvements are made, alongside a reduction in speed limits.

There is a large body of evidence linking physical activity with improved physical and mental health. UK Guidelines[[121]](#footnote-122) published by the Department of Health & Social Care state that every week, adults should accumulate at least 150 minutes of moderate intensity activity; or 75 minutes of vigorous intensity activity; or even shorter durations of very vigorous intensity activity; or a combination of moderate, vigorous and very vigorous intensity activity.

The health benefits of physical activity are summarised in a 2011 Department of Health Report[[122]](#footnote-123), which states that ‘regular physical activity can reduce the risk of many chronic conditions including coronary heart disease, stroke, type 2 diabetes, cancer, obesity, mental health conditions and musculoskeletal conditions’. A priority set out in the Welsh Transport Strategy is to improve health within Wales through reducing environmental noise and air pollution. The Welsh Task Force Group report13 identifies the potential for the proposal to reduce noise pollution due to lower motor speeds, therefore positively impacting health within Wales.

The report also states that ‘even relatively small increases in physical activity are associated with some protection against chronic diseases and an improved quality of life.’ A systematic review of reviews and meta-analyses[[123]](#footnote-124) found that physically active older adults are at reduced risk of all cause and cardiovascular mortality, breast and prostate cancer, fractures, recurrent falls, Activities of Daily Living (ADL) disability and functional limitation and cognitive decline, dementia, Alzheimer’s disease and depression. Further evidence[[124]](#footnote-125) suggests that lack of physical activity in children can lead to cardiovascular disease and associated diseases such as obesity which can be tracked from adolescence into adulthood, contributing to premature mortality.

A systematic review and meta-analysis[[125]](#footnote-126) of 150 Cochrane systematic reviews published between 2000 and 2019 found physical activity was associated with a 13% reduction in mortality and an improvement in quality of life. Another systematic review and meta-analysis[[126]](#footnote-127) assessing objective physical activity found a 40% decreased risk for mortality in individuals in the highest category of light, moderate to vigorous and total physical activity compared to the lowest.

A literature review of studies from various countries examining the relationship between physical activity and happiness[[127]](#footnote-128) showed that as little as 10 minutes of physical activity per week resulted in increased levels of happiness. A systematic review undertaken by the Department of Health and Human Services[[128]](#footnote-129) in the US, noted that a major finding of the evidence was that regular physical activity reduced the risk of clinical depression and depressive symptoms among people both with and without clinical depression. Physical activity was also found to reduce the severity of those symptoms irrespective of number of depressive symptoms. The review also found that perceived quality of life is improved by regular physical activity. A cross-sectional and longitudinal study[[129]](#footnote-130) found that walking had positive associations with psychological and social well-being. A systematic review and meta-analysis[[130]](#footnote-131) of 42 studies including 37,408 individuals found a significant protective effect of physical activity on depression further highlighting the importance of physical activity on mental health.

Research suggests that most sustained exercise is taken during the course of everyday activities such as travelling to work or going to the shops, rather than specifically for health purposes[[131]](#footnote-132).A systematic review[[132]](#footnote-133) of built environment effects on physical activity and active transport showed a positive effect of walkability components, provision of quality parks and playgrounds, and installation of or improvement in active transport infrastructure on active transport and physical activity.

A 2013 literature review by Saunders et al.[[133]](#footnote-134) focuses on the health benefits of active travel. The review determined that, although there is no clear evidence on the effectiveness of active travel in reducing obesity, there has been a rise in the prevalence of obesity which has occurred in parallel with a decline in active travel in the past 30-40 years. Data from a report by the National Obesity Observatory in 2011[[134]](#footnote-135) suggests a number of factors impact active travel including access to fitness facilities, distance to destinations, land use, urban walkability scores, safety, availability of equipment and the provision of footpaths.

More recent research[[135]](#footnote-136) found that people living in walkable neighbourhoods tend to be more physically active and less likely to be obese which could contribute to the reduced risk of diabetes for older adults. Similarly, a study[[136]](#footnote-137) of the UK Biobank cohort found that neighbourhood walkability is associated with lower levels of blood pressure and reduced risk of hypertension. Assuming the adoption of a 20mph default speed limit will result in an increase in people walking, this suggests that there could be wider health benefits of walkable neighbourhoods and increased physical activity.

A study looking at environmental factors that influence a street’s appeal for cycling[[137]](#footnote-138) found that whilst segregation of cycle paths from the street had by far the strongest influence, where this was not possible, reducing traffic speed from 50kph to 30kph increased the street’s appeal for cycling.

Vernon et al. in 2014[[138]](#footnote-139) suggest that road safety inventions can also help to encourage physical activity by creating a safer physical road environment and reducing the level of danger posed to vulnerable road users. Vernon et al note that road safety has a much wider impact on health than just preventing injuries. This is because some forms of travel (i.e. walking and cycling), and the provision for them, bring more health benefits for individuals and society than others.

*Vulnerable groups*

Although all groups are shown to benefit from regular exercise, the benefits to children and older people are particularly emphasised. The importance of exercise for children is highlighted in terms of benefits in building up bone density, avoidance of weight gain, links to health status in later life, and in establishing habits, which may be more difficult to begin in later life[[139]](#footnote-140),[[140]](#footnote-141). The benefits for older people include retention of mobility, cognitive function and independence[[141]](#footnote-142). Children, young people and older people are expected to experience benefits associated with the adoption of a default 20mph speed limit. These benefits include increased confidence in independent mobility and a reduction is social isolation.

A report by PHE[[142]](#footnote-143) has reported that people with lower socioeconomic status, older people, disabled people, women, minority ethnic groups (specifically Bangladeshi and Pakistani women), and lesbian, bisexual, transgender people are particularly vulnerable to physical inactivity[[143]](#footnote-144).

**Social and community influences (e.g. social isolation, social cohesion, social networks)**

The Communities and Local Government (CLG) document Towards Lifetime Neighbourhoods: Designing sustainable communities for all[[144]](#footnote-145) describes lifetime neighbourhoods as being *“sustainable communities that offer a good quality of life to all generations”.*

They should aim to be:

* 1. accessible and inclusive;
  2. aesthetically pleasing and safe (in terms of both traffic and crime), and easy;
  3. pleasant to access; and
  4. a community that offers plenty of services, facilities and open space.

Furthermore, lifetime neighbourhoods are likely to foster:

1. a strong social and civic fabric, including volunteering, informal networks;
2. a culture of consultation and user empowerment amongst decision-makers; and
3. a strong local identity and sense of place.

Social cohesion is defined as the quality of social relationships and existence of trust, mutual obligations and respect in communities or the wider society[[145]](#footnote-146). This is closely related to levels of inequality or exclusion within a given community.

Social cohesion is also closely linked to social capital which the World Bank has defined as “…the institutions, relationships and norms that shape the quality and quantity of a society's social interactions... Social capital is not just the sum of the institutions which underpin a society – it is the glue that holds them together”*[[146]](#footnote-147)*.

The physical environment can directly influence social capital and social cohesion, as social networks rely on high quality, accessible spaces where people can meet to pursue their hobbies and interests and interact socially. This includes transport infrastructure, which enables residents to integrate within and move outside of their own community.

Social cohesion has been linked to volunteering, the empowerment of individuals and ethnic diversity. It also provides opportunities for communities to participate in the planning of healthcare services and social infrastructure, improving community cohesion and positively impacting mental health and well-being[[147]](#footnote-148).

Social cohesion has been shown to positively correlate with a reduced fear of isolation and positive mental health. In contrast, inequalities within a population and crime and safety can erode social cohesion within a community[[148]](#footnote-149). The 20mph Task Force Group report13 identifies that it is likely social cohesion will improve as a result of the proposal.

An article published in the International Journal for Equity in Health by Uphoff *et al* in 2013[[149]](#footnote-150) describes social capital, at an individual level, as focusing on personal resources that emerge from social networks where individuals have good access to information, services and support. The article argues that cultural and socioeconomic aspects can act as a barrier to social capital. For example, some types of social capital may only be beneficial to those who have access to them through sufficient economic capital, such as expensive sports clubs.

A literature review conducted in 2017 found that social capital influences the self-management of chronic diseases, such as diabetes and chronic obstructive pulmonary disease, as well as self-reported health, depressive symptoms, body mass index, and positive health behaviours[[150]](#footnote-151). This review highlighted several ways in which social capital can influence health: “through a direct extension of resources to an individual via reciprocity exchange (e.g. caregiving, transportation to medical appointments), through its effect on health-related behaviours (e.g. tobacco and alcohol use, diet, exercise), or by its impact on other social determinants, such as education, employment and volunteering. Social capital also affects health by mitigating the threat of stress-inducing circumstances.” Social capital can influence health through ‘collective efficacy’ where cohesive groups undertake health-promoting action together.

Multiple studies[[151]](#footnote-152),[[152]](#footnote-153),[[153]](#footnote-154) suggest a positive correlation between social capital and physical and mental health. However, a systematic review[[154]](#footnote-155) found numerous non-significant or negative relationships between social capital and health. This review also found that the efficacy of social capital interventions on health remained unclear. It is difficult to assess whether an increase in health is due to an increase in social capital, which limits the ability to understand whether and how social capital interventions can improve health.

*Vulnerable Groups*

A systematic review of social capital in children and adolescents found that social capital generated at both the family and community level can influence mental health and behavioural problems in young people, and that a young person’s own network of social support is important[[155]](#footnote-156). Young people also “accrue indirect benefit from their parents having wider and higher quality social support networks”. Some population groups are believed to be at particular risk of social exclusion, including black and minority ethnic groups, disabled people, lone parents, older people, carers, asylum seekers and refugees and ex-offenders[[156]](#footnote-157).

**Living/ environmental conditions (e.g. noise, air quality, greenspace, housing, indoor environment)**

*Air Quality*

The WHO recognises outdoor air pollution as a major environmental health problem for all countries including high-income countries[[157]](#footnote-158).There is a wealth of evidence showing the association of nitrogen dioxide and particulate matter on poor health outcomes. Epidemiological studies have shown that long-term exposure to air pollution (over years or a lifetime) reduces life expectancy, due to cardiovascular and respiratory diseases and lung cancer. Short-term exposure (over hours or days) to increased levels of air pollution can also have a range of health effects, including effects on lung function, asthma, as well as increases in respiratory and cardiovascular hospital admissions, and mortality[[158]](#footnote-159). Additionally, outdoor air pollution can influence productivity and contribute to social costs such as increasing days off work and school due to restricted health[[159]](#footnote-160).

A Public Health England review[[160]](#footnote-161) of interventions to improve outdoor air quality and public health found clear evidence that air pollution is the largest environmental risk to the health of the public in the UK. The review found that:

* it is estimated that between 28,000 and 36,000 deaths each year are attributed to human made air pollution;
* there is a close association with cardiovascular and respiratory disease, including lung cancer;
* there is emerging evidence that other organs may also be affected, with possible effects on dementia, low birth weight and diabetes; and
* it concluded that the most impactful interventions would be those that reduce emissions of air pollution at source.

According to the Lancet Commission on pollution and health[[161]](#footnote-162) children are at high risk of pollution related disease and even extremely low-dose exposures to pollutants during windows of vulnerability in utero and in early infancy can result in disease, disability, and death in childhood and across their lifespan. Research has shown that exposure to particulate matter affects children’s lung development, including reversible deficits in lung function as well as chronically reduced lung growth rate and a deficit in long-term lung function.

*Road traffic emissions*

Evidence on the links between road traffic emissions and health is well established. A WHO report in 2000 stated that about 36,000–129,000 adult deaths a year are brought forward due to long-term exposure to air pollution generated by traffic in European cities. The main health damaging air pollutants released by road traffic are coarse particulate matter[[162]](#footnote-163) (PM10) and nitrogen dioxide (NO2).

An evidence and policy review by the UK Health Alliance on Climate Change (2018)[[163]](#footnote-164) notes that transport is a major cause of air pollution. In 2016, emissions from road transport accounted for 12% of PM10 and PM2.5 in the UK and were the third largest source after industrial processes and combustion in residential, public, commercial and agricultural sectors. Furthermore, road transport is responsible for 80% of NO2 levels near roadsides.

PM10, comprises of particles that are less than 10μm in diameter. Road transport is a major source of PM10, which is emitted from the combustion of vehicle fuels. An important property is the extent to which these particles may be deposited within the lungs and this is dependent on size of particles (smaller particles have a greater chance of reaching the deeper parts of the lungs). There is growing evidence that smaller respirable particulate matter may be more relevant to health than larger particles.

Studies have also suggested that particulate pollution of various sizes may exacerbate pre-existing asthma[[164]](#footnote-165). Associations with other conditions such as chronic obstructive pulmonary disease, lung cancer, and COVID[[165]](#footnote-166).

It should be noted that exposure in an urban setting is complex and cumulative and interactive effects need to be considered. Furthermore, increasing temperatures related to climate change have also been shown to augment the negative health impact of PM, resulting in increased mortality[[166]](#footnote-167).

The effects of road traffic related NO2 on health are less well understood than the effects of PM10. Numerous epidemiological studies have identified associations between NO2 concentrations and respiratory health[[167]](#footnote-168), but it may be that in these studies NO2 is a key marker for traffic-related pollution such as PM more generally rather than having separate independent effects. Evidence associating NO2 with health effects such as respiratory diseases has strengthened substantially in recent years, but a debate remains whether it is a causal factor or a marker for other traffic-related pollutants[[168]](#footnote-169).

Quantifying short and long-term impacts of NO2 pollution has been problematic due to uncertainties in the concentration-response functions available. It has been estimated that the direct effect of NO2 on the health of the UK’s population could be that between 600 and 6,000 deaths per year may have been brought forward by a matter of days or weeks as a result of exposure to NO2 in the ambient air[[169]](#footnote-170). Likewise, it has been estimated that between 1,400 and 14,000 hospital admissions and between 200,000 and 2 million GP consultations for respiratory illnesses may arise as a result of exposure to the ambient NO2 in the UK each year[[170]](#footnote-171). Ambient NO2 is said to contribute to an average of 1-7 extra days of symptoms in asthmatics annually.

More recent research by PHE[[171]](#footnote-172) estimated an additional 1,933 new cases of disease attributable to NO2 by 2035, per 100,000 population. For PM2.5 this figure is higher, at 2,248 new cases of disease per 100,000.

Despite growing interest in the issue of emissions, evidence for the effects of 20mph speed limits on air quality is limited, with the findings of relevant studies providing a mixed picture. A 2013 study looking at the effects of 20mph speed restrictions in Central London on vehicle emissions reported that whilst there was a moderate increase in CO2 and NOx from petrol cars, they reduced from diesel cars (representing a significant improvement) and particulate matter emissions reduced for both petrol and diesel cars. As road traffic is responsible for up to 80% of particulate pollution, Davis (2018)[[172]](#footnote-173) points out that this is a significant finding which supports the case for 20 mph speed limits.

Whilst there is no clear evidence of a safe level of exposure below which there is no risk of adverse health effects, there is sufficient evidence available to demonstrate that the adverse effects of air pollution on health outcomes is widely accepted. There is consensus that lowering levels of NO2 and particulate matter will bring additional health benefits.

*Vulnerable groups*

A UK Department for the Environmental, Food and Rural Affairs (DEFRA)[[173]](#footnote-174) found that in England there is a tendency for higher relative mean annual concentrations of nitrogen dioxide (NO2) and PM10 in the most deprived areas of the country. This distribution can largely be explained by the high urban concentrations driven by road transport sources, and the higher proportion of deprived communities in urban areas. If exceedances of National Air Quality Standards are considered, the correlation between poor air quality and deprivation is stronger, showing that when the most polluted areas are considered, the greatest burden is on the most deprived communities.

The review also identifies age as a key indicator of susceptibility to air pollution: *‘children and elderly groups [are] deemed more susceptible to certain health impacts’.*

A similar report in 2017[[174]](#footnote-175) assessing London air pollution exposure in 2013 found that populations living in the most deprived areas are on average more exposed to poor air quality (NO2 and PM10) than less deprived areas.

A recent PHE[[175]](#footnote-176) report has stated that children, older people, and people with chronic health problems such as pre-existing cardiovascular and respiratory conditions are the most vulnerable to air pollution. According to the Lancet Commission on pollution and health[[176]](#footnote-177) children are at high risk of pollution related disease and even extremely low-dose exposures to pollutants during windows of vulnerability in utero and in early infancy can result in disease, disability, and death in childhood and across their lifespan. Research has shown that long - term exposure to PM2.5 affects children’s lung development, including deficits in lung function[[177]](#footnote-178),[[178]](#footnote-179).

*Noise*

Sound is produced when something vibrates and sends waves of energy through the air to our ears. Noise is typically defined as ‘unwanted sound’[[179]](#footnote-180). Noise from environmental sources, in particular from road traffic, is increasingly accepted as influencing the health and well-being of individuals or populations[[180]](#footnote-181). The WHO has stated that *“Environmental noise is a threat to public health, having negative impacts on human health and well-being”*[[181]](#footnote-182).

Hearing loss does not occur from typical exposure to environmental noise; it is more commonly associated with occupational exposure to much higher noise levels. In the everyday environment, the response of an individual to noise is more likely to be behavioural or psychological (i.e. non-auditory)[[182]](#footnote-183) but can also be physiological[[183]](#footnote-184),[[184]](#footnote-185). There are a wide range of non-auditory health effects that may be associated with exposure to environmental noise.

The 2018 WHO Guidelines on Environmental Noise for the European Region[[185]](#footnote-186) undertook a series of systematic reviews synthesising exposure and associated impacts on health in order to develop a set of guidelines on how to protect human health. Recommendations were formulated based on the strength of evidence from various noise sources. The systematic reviews concluded that there was evidence for an association of road traffic and railway noise on cardiovascular disease and metabolic disorders, sleep disturbance, annoyance, and cognitive impairment, with suggestive but weaker evidence (often due to lack of studies) for effects on mental health and birth weight.

The proposal is likely to result in reduced noise levels with lower motor traffic speed. Research finds that higher motor vehicle speeds always lead to greater annoyance but more significantly lower speeds and hence reduced noise could result in positive changes in physical and mental health outcomes including lowering hypertension[[186]](#footnote-187). Recent evidence from Brussels, where a city-wide 30km/h default speed limit was introduced on 1 January 2021, suggests a reduction in noise between 1.5 and 4.8 dB(A).[[187]](#footnote-188) Furthermore, similar evidence from Lausanne, Switzerland, suggests that the implementation of 30 km/h speed limits in the city of Lausanne is expected to induce health benefits mainly through a reduction in noise exposure.[[188]](#footnote-189)

A recent review[[189]](#footnote-190) commissioned by DEFRA considered how evidence has changed since the publication of the WHO Environmental Noise Guidelines. Clark et al., 2020 found associations between noise and medication use and interview measures of depression and anxiety. Associations with some cancer outcomes were also observed however, the quality of evidence across studies remains low for these outcomes.

*Vulnerable groups*

A literature review by van Kamp and Davies in 2013 [[190]](#footnote-191) looked at 62 papers published from April 2006 to April 2011, which included the impact of environmental noise on the health of vulnerable people, including primary school children, young adolescents, preschool children, older people, and children with autism, asthma and attention deficit hyperactivity disorder. A more recent report published by European Environment Agency in 2020[[191]](#footnote-192) adds that shift workers, noise sensitive individuals, pregnant woman, and socio-economically disadvantaged individuals are also particularly vulnerable to noise. Both reviews agree, that while vulnerable groups of people may be more at risk from exposure to environmental noise than healthy adults, there is comparatively little research focusing on the adverse health effects of noise on vulnerable people.

An evidence review[[192]](#footnote-193) of social inequalities in environmental noise exposure in WHO European region found higher noise exposures in groups with lower socioeconomic position. A study in London, looking to quantify socioeconomic and ethnic inequalities found that socioeconomic inequalities in road traffic noise were generally small. The odds of living within a 50dB contour of rail noise were 19% higher for black compared to white individuals[[193]](#footnote-194).

*Access to open space and nature*

Numerous studies have found links between mental and physical health and access to green space. A recent systematic review of observational evidence has shown an association between long-term exposure to green space and cognition (intellect and cognisance) over the life course[[194]](#footnote-195). The association is seen cross-sectionally in both adults and children.

A review of the literature examining the association between access to green space and the mental well-being of children concluded that access to green spaces promoted attention and memory, fostered supportive social groups and self-discipline and improved symptoms of attention deficit hyperactivity disorder[[195]](#footnote-196).

A review by O’Brien et al. (2010) for the Forestry Commission[[196]](#footnote-197) looked at papers examining the health effects of green spacefound evidence to support the view that access to open space and natural environments have health benefits, particularly through increased physical activity.

The literature review found that the proximity, size and amount of green space available to people in urban environments influenced physical and mental health outcomes. The review identified the key health benefits of green space as:

* ‘long and short term physical benefits associated with obesity, life expectancy, heart rate and blood pressure;
* attention and cognitive benefits associated with restoration, mood and self-esteem;
* physical activity benefits associated with the use of greenspace;
* self-reported benefits in terms of health and life satisfaction; and
* community cohesion benefits through social contact fostered by greenspace.’
* The review suggests various mechanisms for the beneficial effects of green space including ‘providing a space that promotes social interaction and inclusion, reducing social annoyances and crime’ and ‘reducing stress and restoring cognitive function and capacity to function with the demands of life’.

Research conducted by Mass et al. in 2006[[197]](#footnote-198) has suggested that there is a positive association between the proportion of green space in a residential area and the perceived general health of residents, and that this relationship is strongest for lower socio-economic groups.

There is little evidence linking traffic speed directly to access to green space. However, there is evidence that the soundscape of urban green spaces does affect the benefit that the green space brings in relation to a person’s health and wellbeing. Research looking at urban greenspace soundscapes and their perceived restorativeness[[198]](#footnote-199) suggests that traffic noise moderates the positive restorative effect of bird song within the green space. People who were more noise-sensitive were found to be more negatively affected by traffic noise. As lower traffic speeds result in lower traffic noise, it is likely that the soundscape of urban green spaces would benefit, thereby increasing people’s enjoyment of these spaces.

**Assessment of health impacts**

The table below sets out a high-level health impact assessment of the introduction of a 20mph speed limit, based on the methodology described above.

| Health determinant  Key guiding questions (*“Will introducing 20mph speed limits on restricted roads in Wales…”*) | Relevant vulnerable groups | Assessment and Mitigation |
| --- | --- | --- |
| Lifestyle/Behaviour Factors Affecting Health  *Affect physical activity?* | All vulnerable groups | **Positive**  **Physical activity**   * Modal shift towards active travel, such as walking and cycling as people feel safer on streets with slower moving traffic. * Children feel safer in the streets so could play outside more and be given more travel independence by their parents as a result of the perception of safer streets. This would increase levels of activity. * Risk: The proposed policy may not, on its own, provide the behavioural change necessary to have an effect on physical activity, in terms of residents’ and road users’ attitudes to speed and safety.   + Mitigation: A focus on wider cultural changes by making street design more aesthetically pleasing, more intensive street redesign to increase feelings of safety, or raise awareness via accompanying physical changes with health promotion and educational interventions around physical activity |
| Social and community influences on health  *Affect family organisation and roles?*  *Affect neighbourliness?*  *Affect social isolation?*  *Affect social networks?*  *Affect sense of belonging?*  *Increase opportunities to access social networks?* | All vulnerable groups | **Positive**  **Family organisation and roles**   * It is not considered that the policy would have any impact on family organisation and roles.   **Neighbourliness/social networks**   * Increased value placed in neighbourhoods because of feeling safer * Spending more time outside in the neighbourhood can increase social networks in the area, more face-to-face connectedness with neighbours * Increased sense of belonging in local neighbourhood   **Negative**  None identified |
| Living/environmental conditions affecting health  *Affect air quality and reduce number of people exposed to poor air quality?*  *Affect noise and reduce the number of people exposed to high levels of traffic noise?*  *Contribute to access to green space?* | All vulnerable groups | **Positive**  **Air Quality and Noise**   * More active travel could reduce car use and reduce air pollution levels leading to improved health outcomes * Slower speeds will reduce noise pollution and potentially air emissions, in particular particulates (PM10 and PM2), resulting in improved health outcomes.   Evidence in relation to air quality and noise effects is limited and with mixed results. Studies which clearly demonstrate the links between speed limits and air quality are inconclusive and, to some extent, depend on driving style. More research (monitoring) is needed to identify whether reduced speed limits have a positive or negative impact on air quality.  **Green space**   * Increased value placed on neighbourhoods could encourage the use of green spaces. This was shown in the Covid 19 pandemic when more people came to value their local environments and green spaces. If traffic speed reductions lead to people feeling safer outdoors, this could have a similar effect on people’s perceptions and value placed on these green spaces. However, there is currently no evidence to support this assertion. * **Negative**   None identified |

**\*\* Evidence Table and Gap Analysis \*\***

The table below summarises selected key evidence used in the Health Impacts Assessment, and highlights key gaps.

| Evidence | Source |
| --- | --- |
| Lifestyle/Behaviour Factors Affecting Health | [‘Go slow: an umbrella review of the effects of 20mph zones and limits on health and health inequalities’, Journal of Public Health, vol. 37, no. 3, pp. 515–520](https://academic.oup.com/jpubhealth/article/37/3/515/2362676)  [20mph Research Study: Process and Impact Evaluation Headline Report.](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757307/20mph-headline-report.pdf)  [Bristol 20mph limit evaluation (BRITE) study.](https://uwe-repository.worktribe.com/output/875541)  [Speed, emissions & health. The impact of vehicle speed on emissions & health: an evidence summary.](http://content.tfl.gov.uk/speed-emissions-and-health.pdf)  [Welsh 20mph Task Force Group: Final Report, July 2020](https://www.gov.wales/sites/default/files/publications/2020-07/20mph-task-force-group-report.pdf)  [Lambeth goes 20mph](https://www.lambeth.gov.uk/parking-transport-and-streets/streets-and-roads/lambeth-goes-20mph)  [Safe speeds for Central London: Introducing 20mph speed limits.](https://consultations.tfl.gov.uk/streets/20/results/safespeedsforcentrallondonintroducing20mphspeedlimitsconsultationreport.pdf)  [Evidence of the Impact of 20mph speed limits. The Scottish Parliament Information Centre.](https://archive2021.parliament.scot/S5_Rural/Research_evidence_20mph_bILL.pdf)  [‘Effects of 20mph interventions on a range of public health outcomes: A meta-narrative evidence synthesis’, Journal of Transport & Health, vol. 17, viewed 3 August 2021.](https://www.sciencedirect.com/science/article/abs/pii/S2214140519301859)  [The state of the evidence on 20mph speed limits with regards to road safety, active travel and air pollution impacts. 2018. Davis, A.](https://www.gov.wales/sites/default/files/publications/2019-08/the-state-of-the-evidence-on-20mph-speed-limits-with-regards-to-road-safety-active-travel-and-air-pollution-impacts-august-2018.pdf)  [Built environmental correlates of cycling for transport across Europe. 2017. Mertens, L.](https://www.sciencedirect.com/science/article/pii/S1353829217300679) |
| Social community influences on health | [Healthy Streets for London: Prioritising walking, cycling and public transport to create a healthy city.](https://content.tfl.gov.uk/healthy-streets-for-london.pdf)  [Speed, emissions & health. The impact of vehicle speed on emissions & health: an evidence summary.](http://content.tfl.gov.uk/speed-emissions-and-health.pdf) |
| Living/environmental conditions affecting health | [‘Twenty miles per hour speed limits: a sustainable solution to public health problems in Wales’, Journal of Epidemiology and Community Health (1979-), vol. 71, no. 7, pp. 699](https://pubmed.ncbi.nlm.nih.gov/28341623/)  [20mph Research Study: Process and Impact Evaluation Headline Report.](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757307/20mph-headline-report.pdf)  [Bristol 20mph limit evaluation (BRITE) study.](https://uwe-repository.worktribe.com/output/875541)  [Speed, emissions & health. The impact of vehicle speed on emissions & health: an evidence summary.](http://content.tfl.gov.uk/speed-emissions-and-health.pdf)  [Welsh 20mph Task Force Group: Final Report, July 2020](https://www.gov.wales/sites/default/files/publications/2020-07/20mph-task-force-group-report.pdf)  [Lambeth goes 20mph,](https://www.lambeth.gov.uk/parking-transport-and-streets/streets-and-roads/lambeth-goes-20mph)  [Evidence of the Impact of 20mph speed limits. The Scottish Parliament Information Centre.](https://archive2021.parliament.scot/S5_Rural/Research_evidence_20mph_bILL.pdf) |
| Evidence required | |
| Evidence linking use of and quality of green space changing following speed reductions on restricted roads. | |

# Welsh Language Impact Assessment

This Welsh Language Impact Assessment (WLIA) is being carried out in line with the Welsh Government’s statutory obligation to fully consider effects of its work on the Welsh language. This is in line with the Welsh Language Act 1993, which ensures that the Welsh language and the English language are treated on a basis of equality. This assessment aims to consider the impacts, both positive and negative, of the policy on the Welsh language and Welsh speaking people and communities. The assessment is an essential part of the policy development and delivery process.

**Policy and Legislative Context**

This assessment commences with an overview of the relevant policy and legislative context as follows.

***Welsh Language Act 1993***

The Welsh Language Act 1993 requires public sector organisations to publish Welsh Language Schemes and is:

*‘An Act to establish a Board having the function of promoting and facilitating the use of the Welsh language, to provide for the preparation by public bodies of schemes giving effect to the principle that in the conduct of public business and the administration of justice in Wales the English and Welsh languages should be treated on a basis of equality, to make further provision relating to the Welsh language, to repeal certain spent enactments relating to Wales, and for connected purposes.’*

***The Welsh Language (Wales) Measure 2011***

The Welsh Language (Wales) Measure 2011 was passed by the National Assembly for Wales and given Royal Assent on 9 February 2011. The Measure:

* Gives the Welsh language official status in Wales; the Welsh language should be treated no less favourably than the English language in Wales.
* Establishes the role of the Welsh Language Commissioner; the Commissioner’s role is to promote the Welsh language and improve the opportunities people have to use, by emphasising the language’s official status in Wales and by placing standards on organisations.
* Provides the Welsh Language Commissioner’s Advisory Panel.
* Creates a procedure for introducing duties in the form of language standards.
* Makes provision regarding promoting and facilitating the use of the Welsh language.
* Makes provision regarding investigating an interference with the freedom to use the Welsh language.
* Establishes the Welsh language tribunal.
* Makes provision for the Welsh Language Partnership Council.
* Abolishes the Welsh language board.

Local authorities have a statutory duty to comply with the Welsh Language Standards through the Welsh Language (Wales) Measure 2011. Chapter 3 (33) of The Welsh Language Measure refers to those liable to conform with these regulations, such as the Welsh Language Standards. In response to the consultation, the Welsh Language Commissioner highlights the importance of local authorities to comply with a number of regulations.

***Welsh Language Standards***

The Welsh Language Standards were published by the Welsh Language Commissioner. They are a set of legally binding requirements which apply to the Welsh Government since 30 March 2016. The compliance notice that was issued to the Welsh Ministers on 30 September 2015 sets out which standards apply to the Welsh Government. To comply with the Welsh Language Standards local authorities need to ensure:

1. Clarity to organisations in relation to the Welsh language;
2. Clarity to Welsh speakers on what services they can expect to receive in Welsh; and
3. Greater consistency in Welsh language services and improve quality to users.

In addition to the Welsh Language Standards that are currently applicable to local authorities in Wales, as named in Schedule 8 of the Welsh Language (Wales) Measure 2011, the Welsh Government is able to make Welsh Language Standards specifically for any qualifying person who provides services to the public under an agreement, or in accordance with arrangements made with:

1. the Welsh Ministers
2. a Minister of the Crown
3. a government department
4. a person exercising on behalf of the crown functions conferred by or under an Act or Measure, or
5. a county borough or county council in Wales.

***The Well-being of Future Generations (Wales) Act 2015***

Under the Well-being of Future Generations (Wales) Act 2015, public bodies in Wales are required to work towards the seven well-being goals, one of which is ‘A Wales of vibrant culture and thriving language’.

***Cymraeg 2050***

Cymraeg 2050: A million Welsh speakers, sets out the Welsh Ministers’ strategy for the promotion and facilitation of the use of the Welsh language, with the aim of creating a Wales whereby the Welsh language is an integral element of all aspects of everyday life. Specifically, the strategy aims for there to be a million Welsh speakers by 2050, and amongst those who do not speak Welsh, there is goodwill and a sense of ownership towards the language and a recognition by all of its contribution to the culture, society and economy of Wales.

Cymraeg 2050 is supported by the first of several work programmes that will be published during the lifespan of the Cymraeg 2050 strategy. The current work programme sets out what the Welsh Government intends to do between 2017 and 2021 in order to deliver the strategy.

According to the 2011 Census there were 562,000 Welsh speakers aged three years and over living in Wales. It is projected that there will be 666,000 Welsh speakers by 2050[[199]](#footnote-200), though these projections are subject to change when Census 2021 data is published Cymraeg 2050 therefore aims to build upon this figure substantially; by reaching 334,000 additional speakers compared to the current forecasts over the next three decades. It is currently estimated that of those aged 16 and over, 12% speak Welsh daily and of more than a few words[[200]](#footnote-201).

***Llwybr Newydd: Wales Transport Strategy 2021***

The Wales Transport Strategy highlights the role the Welsh transport system has in benefitting Welsh culture and supporting the Welsh language. This enables more people including Welsh speaking communities to use sustainable transport to get to arts, sport and cultural activities, and protects and enhances the historic environment. The Strategy also prioritises the aim for quality of provision in transport access to Welsh- language education. However, the Strategy acknowledges the lack of data regarding the direct link between the transport system and the Welsh language and therefore outlines the need for data on the contribution of transport to culture and the Welsh language, and better information on the protection of heritage assets and their settings in asset management and transport interventions[[201]](#footnote-202).

**Impacts on the Welsh Language**

In the sections below, this WLIA considers the proposed policy to implement a 20mph default speed limit, and its likely impact on the Welsh language and contribution to the Welsh Government’s Well-being goal for the Welsh language and its strategy, Cymraeg 2050: A million Welsh speakers.

*Legal and Policy*

The adoption of a default residential speed limit of 20mph would require;

* The Welsh Ministers to make subordinate legislation under Section 81(2) of the Road Traffic Regulation Act 1984 as to reduce the maximum lawful speed of a motor vehicle on a restricted road in Wales to 20mph;
* The Welsh Ministers to make subordinate legislation under Section 65(3) of the Road Traffic Regulation Act 1984 to give general directions to local authorities on the appropriate placing of speed limit signs, taking into account the change in the default speed limit for restricted roads;
* The Welsh Government to work with the Department for Transport to amend relevant UK policy and guidance documents and in particular the Highway Code to inform road users of the 20mph national default speed limit on roads in Wales with street lighting; and
* Welsh Government to amend relevant policy and guidance documents and in particular its Setting Local Speed Limits guidance to advise local authorities on selecting the appropriate speed limit in the light of the changed legislation.

In accordance with the Welsh Language Act 1993, bilingual versions of any legislation and/ or policy made should be provided because the English and Welsh languages should be treated on a basis of equality. This will also demonstrate respect for the community (Cymraeg 2050) and would contribute to achieving Cymraeg 2050’s vision to see the Welsh language as a normal part of everyday life, with goodwill towards it and an increase in use. The option and the presence of Welsh language would also contribute to the vision by making it more relevant for everyone in Wales, regardless of the language they speak and to also inspire a respect and appreciation of the language among people who move into Wales.

It is considered the legislative proposal would give local authorities a greater ability to protect and enhance the Welsh Language, contributing to Cymraeg 2050’s vision by making it more relevant for everyone in Wales, regardless of the language they speak and to also inspire a respect and appreciation of the language among people who move into Wales.

*Enforcement*

GoSafe and their agreed objectives support the Welsh Government policy intention to introduce a default 20mph speed limit by working with Welsh Government and partners on developing an enforcement plan that will not only improve road safety, but also help address the needs of local communities.

GoSafe’s policy to select core camera sites and routes, which may also be chosen on the basis of concerns expressed by communities, will help to enforce the proposal. Neighbourhood Policing Teams across Wales can also operate Community Speedwatch recording those who are seen to exceed the speed limit.

The role roads policy can play in relation to increasing community cohesion and the wider well-being agenda is considered within the health impact assessment (Annex B). The adoption of a default residential speed limit of 20mph is considered to lead to the creation of a more pleasant environment, with people feeling safer in their communities[[202]](#footnote-203). The benefits the introduction of a 20mph default speed limit would create in communities would also be extended to Welsh speaking communities within Wales.

Cymraeg 2050 highlights there are many challenges facing Welsh-Speaking communities, and it is important that these communities are economically and linguistically viable. The introduction of a default 20mph speed limit will create favourable conditions such as slower moving traffic, which will support and increase Welsh communities through the reduction of community severance and increased social connectedness[[203]](#footnote-204).

*Communications and Promotion*

The adoption of a default residential speed limit of 20mph would require the Welsh Government to design and conduct an effective communication and promotion strategy in conjunction with local authorities. This would be to raise awareness that the national default speed limit for restricted roads is reducing to 20mph and to promote compliance with it.

An agency/agencies should be procured to develop and deliver a creative campaign with a strong identity and to develop a suite of messages to run through the phases. Subject to proposals from agencies, this is likely to be a fully integrated marketing campaign including national advertising on TV; radio; press and outdoors; PR activity; on-line and social media; Ministerial announcements (see above); plenary debates and media relations.

All information within the campaign should be readily available in both Welsh and English. Enhancing the presence of the Welsh language within the campaign would contribute to the enhancement of Welsh and emphasise the language as a key component in Welsh contemporary culture. Language is a key and integral part of culture and also serves as a way of presenting a unique image of Wales to tourists. By providing bilingual information on various platforms, the Welsh language is celebrated and promoted, and becomes a visible part of ‘Brand Cymru’ as cited within Cymraeg 2050: A million Welsh speakers.

Providing information to the public in Welsh and English languages would help ensure:

* Those whose first language is Welsh are provided with information in their first language;
* Those who would prefer to access the information in Welsh could choose to do so; and
* Non-Welsh speakers are provided with the opportunity to read and learn some of the Welsh language.

Providing information in Welsh and English would provide many users with a choice in how they consume the information, whilst also promoting the Welsh language.

The Equality and Human Rights Commission (2009)[[204]](#footnote-205) also found that greater staff awareness and availability of Welsh language services is important for future developments; and that services do not discriminate against Welsh speakers.

There would also be opportunities for local authorities to undertake effective consultation with local people and stakeholders and identify sections of highway that potentially are exceptions to the 20mph default limit for restricted roads. This would help promote the Welsh Language if all notices, advertisements, and consultations had the option to be provided in Welsh.

The introduction of this legislation could encourage local authorities to adopt Welsh notices / advertisement and provide all information in Welsh, helping to promote the day-to-day use of Welsh.

The need for all communications and road signs to be bilingual to avoid a negative impact on the Welsh language was also highlighted within St Dogmaels 20s Plenty for Us consultation response, with the suggestion that communications appear in Welsh first followed by the English translation. In compliance with the Welsh Language standards the provision of any new signage as a result of the proposal will be displayed in a way that conveys the same information in Welsh and in English, with the Welsh text being positioned so that it is likely to be read first[[205]](#footnote-206).

*Impacts on the sustainability of Welsh speaking communities*

By adopting a default residential speed limit of 20mph, Welsh speaking communities will benefit from improved community safety which will help to reduce isolation and help communities to be more connected.

It is evident that many Welsh speaking communities comprise of rural communities, and with a reduced default speed limit, and improvements to public transport, travelling would become easier and therefore active travel and public transport more convenient for these users.

The proposal has the potential to improve accessibility to Welsh medium education services through improved community cohesion and a safer walking environment. In addition, improved accessibility to education and institutions which offer Welsh language learning for all ages.

*Do-nothing*

Doing nothing will likely see a continued failure to meet government objectives for the reduction of the number of personal injury accidents or people being killed or seriously injured, in addition to poor social cohesion leading to increased social isolation including for communities with Welsh-speaking populations.

**Conclusions and Monitoring**

In conclusion, it is anticipated that there would be minor positive effects as a result of the proposal on the Welsh Language, for all Welsh Speaking communities in terms of improved neighbourhood quality and reduced collisions and injuries within their communities. As all promotional, educational material (highway code), and signage would be available in Welsh and English, there is likely to be a neutral effect in this regard.

Given the scale of change resulting from the proposals is uncertain at this stage, it is recommended further engagement with Welsh speakers could be undertaken once the policy has been adopted to understand whether any further impacts have been experienced.

Long term monitoring by the WG and local authorities of the impact of the default 20mph speed limit on the Welsh language will be required. The Welsh Language Commissioner is responsible for monitoring compliance with Welsh Language Standards as outlined in the Welsh Language Measure.

**\*\* Evidence Table and Gap Analysis \*\***

The table overleaf summarises selected key evidence used in the assessment of impacts on the Welsh Language and highlights key gaps, if any.

| Current Evidence | Source |
| --- | --- |
| Policy | [Well-being of Future Generations (Wales) Act 2015](https://www.futuregenerations.wales/about-us/future-generations-act/) |
| [Welsh Language Act 1993](https://www.legislation.gov.uk/ukpga/1993/38/contents) |
| [The Welsh Language (Wales) Measure 2011](https://www.legislation.gov.uk/mwa/2011/1/contents/enacted) |
| [Welsh Language Standards](https://www.legislation.gov.uk/wsi/2018/441/made) |
| [Cymraeg 2050: A Million Welsh Speakers](https://gov.wales/sites/default/files/publications/2018-12/cymraeg-2050-welsh-language-strategy.pdf) |
| [Learner Travel (Wales) Measure 2008](https://www.legislation.gov.uk/mwa/2008/2/section/10). |
| Statistics | [StatsWales: Welsh Language](https://statswales.gov.wales/Catalogue/Welsh-Language) |
| [National Survey for Wales 2018-19: Percentage of adults (16+) who speak Welsh daily and can speak more than just a few words of Welsh](https://gov.wales/wellbeing-wales-national-indicators) |
| Community cohesion and well-being | https://consultations.tfl.gov.uk/streets/20/results/safespeedsforcentrallondonintroducing20mphspeedlimitsconsultationreport.pdf |
| <https://www.lambeth.gov.uk/parking-transport-and-streets/streets-and-roads/lambeth-goes-20mph> |
| <http://content.tfl.gov.uk/speed-emissions-and-health.pdf> |
| [Holt-Lunstad, J., Smith, T. & Layton, J. (2010). Social relationships and Mortality Risk: A meta-analytic review. Plos Medicine.](https://doi.org/10.1371/journal.pmed.1000316) |
| Importance of the Welsh Language | [Victoria Winckler, Equality and Human Rights Commission (2009) – Equality issues in Wales: a research review.](https://www.equalityhumanrights.com/sites/default/files/research-report-11-equality-issues-in-wales-research-review.pdf) |
| [Welsh Language Commissioner – Using the Welsh language on social media: A practical guide for businesses and charities.](https://www.welshlanguagecommissioner.wales/media/q5bcvvky/using-welsh-on-social-media.pdf) |
| Evidence required | |
| * There is a lack of data surrounding the direct impacts a 20mph speed limit will have on the Welsh language. * Additional evidence of the links between the Welsh language and creating community cohesion. | |

# Biodiversity Impact Assessment

**Introduction**

Biodiversity underpins our lives and livelihoods and supports the functioning and resilience of ecosystems in oceans, wetlands, lakes, rivers, mountains, forests and agricultural landscapes.

Overall, biological diversity is declining, which can be seen by the loss of habitats and species. The extent of some habitats has also declined significantly. This means that unless action is taken, the benefits that are derived from natural resources are at risk.

The potential impacts on biodiversity of the proposal for 20mph speed limits in Wales are outlined below, focusing on how the proposals contribute towards Wales meeting its biodiversity objectives. Due to the nature of the proposals, the assessment is relatively high level.

**Embedding biodiversity**

The Environment (Wales) Act 2016[[206]](#footnote-207) sets out the requirement for the ‘sustainable management of natural resources’ together with a duty in Section 6 for stronger biodiversity and resilience of ecosystems in Wales.

The Nature Recovery Action Plan (NRAP) for Wales, 2020-21[[207]](#footnote-208) sets out current national priorities for Wales’ natural resources which are:

* delivering nature based solutions;
* increasing resource efficiency and renewable energy; and
* taking a place-based approach.

These priorities are to be embedded within policy decisions made by the WG with the aim to achieve the following, as set out in the NRAP:

* build resilient ecological networks and mosaics across our whole land and seascape to safeguard species and habitats and the benefits they provide;
* address the root causes of biodiversity loss, not just the symptoms;
* understand the role that nature plays in our lives, livelihoods and well-being;
* invest in improving our evidence and monitoring for the long term;
* recognise and value biodiversity in our accounting and decision making across sectors and portfolios; and
* demonstrate the value we place on biodiversity through governance, and support for skills and capacity.

At this stage, it is not clear to what extent the implementation of a default 20mph speed limit on restricted roads would reduce emissions from vehicle usage. There is evidence to suggest that active travel, such as walking and cycling will increase post implementation (due to people feeling safer on the roads and streets), and if this replaces a car trip it will help to reduce carbon emissions and improve air quality. Nitrous Oxides are one such emission that is harmful to ecological habitats as a result of nitrogen deposition. This is a current concern of Natural Resources Wales (NRW) which has seen nitrogen deposition levels increase in recent history, resulting in impacts on protected habitats across Wales.

More research is required to determine any relationship between a 20mph speed limit and any increase in a modal shift towards more active travel, and less private car use. From an air quality perspective, a decrease in private car use has the potential to decrease emissions. A literature review of the evidence related to 20mph, and air pollution impacts carried out in 2018[[208]](#footnote-209), found that whilst there is a moderate increase in CO2 and NOx in petrol cars, particular matter emissions reduced for both petrol and diesel cars and CO2 and NOx emissions reduced for diesel cars. Changes in NOx that would be beneficial for biodiversity due to reduced nitrogen deposition is therefore questionable, due in part, to the reducing numbers of diesel cars in Wales.

It is possible that existing and new green areas could become more valued by the local community. In these cases, people may volunteer to become involved in their protection and management which would benefit local biodiversity (whilst also benefiting community cohesion). However, this would be very dependent on local appetite and potentially, policy support for community gardens[[209]](#footnote-210). More research would be required to identify where such opportunities exist and indeed if they correlated to the introduction of 20mph speed limits.

**Improving our evidence, understanding and monitoring**

As more data is gathered about how reduced speeds affect air quality, more informed assessments can be made. It is recommended that monitoring and evaluation is carried out across Wales such that more evidence can be obtained in relation to the correction between 20mph limits and biodiversity benefits (if any).

**Support for delivery of biodiversity action**

Raising awareness of how a reduction in emissions can protect biodiversity, may facilitate positive behaviours and attitude changes towards accepting 20mph speed limits. This would sit alongside other behaviour changes such as increased uptake of public transport, making choices to live in a more sustainable way (resulting in reduced emissions), along with actively supporting the protection of the environment and biodiversity of the local area.

**\*\* Evidence Table and Gap Analysis \*\***

The table below summarises selected key evidence used in the assessment of impacts on biodiversity and highlights key gaps.

| Evidence/data utilised | Source |
| --- | --- |
| Welsh Government. (2016). Environment (Wales) Act 2016 | [Environment (Wales) Act 2016](https://www.legislation.gov.uk/anaw/2016/3/contents/enacted) |
| Nature recovery action plan | [Nature Recovery Action Plan Wales 2020-2021.](https://www.gov.wales/sites/default/files/publications/2020-10/nature-recovery-action-plan-wales-2020-2021.pdf) |
| An analysis of the effect of public policy on community garden organisations in Edinburgh | [Witheridge, J. and Morris, N. J. (2016) ‘An analysis of the effect of public policy on community garden organisations in Edinburgh’, *Local Environment*, 21(2), pp. 202–218](https://llyw.cymru/sites/default/files/publications/2019-08/sefyllfar-dystiolaeth-ar-derfynau-cyflymder-20mya-mewn-perthynas-ar-effeithiau-ar-ddiogelwch-ar-y-ffyrdd-teithio-llesol-a-llygredd-aer-awst-2018.pdf) |
| The state of the evidence on 20mph speed limits with regards to road safety, active travel and air pollution impacts. A literature review of the evidence. | [Dr Adrian L Davis. Adrian Davis Associates. Consultant on Transport & Health. Bristol, UK.](https://gov.wales/sites/default/files/publications/2019-08/the-state-of-the-evidence-on-20mph-speed-limits-with-regards-to-road-safety-active-travel-and-air-pollution-impacts-august-2018.pdf) |
| Evidence required |  |
| Ongoing monitoring of nitrogen deposition in habitats close to roads changed to 20mph | |

# Equality Impact Assessment

The Equality Act 2010 offers legal protection from discrimination in all forms. Under the Act, all Welsh public authorities, including the Welsh Government have a duty to pay due regard to eliminating discrimination, harassment, victimisation and fostering good relationships between groups both in the workplace and wider society.

The commitment to fostering equality in Wales is further strengthened through the Well-being of Future Generations (Wales) Act 2015. One of the seven well-being goals included within the Act is the aspiration to create a ‘More Equal Wales’ defined as ‘a society that enables people to fulfil their potential no matter what their background or circumstances’.

In consideration of the abovementioned legislation, this Equality Impact Assessment (EqIA) analyses the proposal put forward in the adoption of a default 20mph speed limit in residential areas within Wales and assesses it for the possibility of discrimination and to understand the opportunities presented to promote equality and foster good relationships between different groups.

Research has been undertaken in order to understand the impact a 20mph speed limit could have on those with protected characteristics as defined by the Equality Act 2010 which include:

* [Age](https://www.equalityhumanrights.com/en/equality-act/protected-characteristics#age);
* [Disability](https://www.equalityhumanrights.com/en/equality-act/protected-characteristics#disability);
* [Gender reassignment](https://www.equalityhumanrights.com/en/equality-act/protected-characteristics#reassignment);
* Marriage and civil partnership
* [Pregnancy and maternity](https://www.equalityhumanrights.com/en/equality-act/protected-characteristics#pregmat);
* [Race](https://www.equalityhumanrights.com/en/equality-act/protected-characteristics#race);
* [Religion or belief](https://www.equalityhumanrights.com/en/equality-act/protected-characteristics#rob);
* [Sex](https://www.equalityhumanrights.com/en/equality-act/protected-characteristics#sex); and
* [Sexual orientation](https://www.equalityhumanrights.com/en/equality-act/protected-characteristics#lgb)

The research carried out in support of this assessment is presented below and considers both statistical analysis as a well as a review of available and relevant literature.

This EqIA has been carried out in accordance with the Welsh Government’s Equalities Impact Assessment Guidance and best practice. The results of the EqIA are presented around the following key themes:

* The transport related barriers faced by people who share protected characteristics, and how these barriers could be reduced, removed and/or mitigated;
* The impact the proposals would have on those with protected characteristics;
* The possible negative impacts on people in protected groups and those living in low income households
* If and how the proposals would promote equality.[[210]](#footnote-211)

**Review of Statistical Data**

The following baseline data has been collected to help build up a demographic picture of Wales in order to consider the issues pertinent to and needs of those with protected characteristics within Welsh society.

*Population and Age Structure*

According to 2011 census data Wales has a total population of 3.06 million people. There is a slightly higher female population, representing 50.9% of the population with 49.1% being male[[211]](#footnote-212). Wales’ population is projected to increase over the next 20 years, possibly by around 3.6%[[212]](#footnote-213) between 2018 and 2038.

Mid-year population estimates show that overall, the population of Wales is increasing, however there is a higher percentage change in the 65+ age group compared to both the age groups 0-15 and 16-64. There has been a 18% increase in the 65+ group, compared to a 1.24% increase for 0-15 and a -0.17% decrease for 16-64 year olds from 2011 to 2020. There was a decrease in the population of those aged 16-64 from 2011 to 2016, however, from 2016 to 2020 there has been an overall increase in those aged 16-64.

As of mid-year 2020, over a fifth (21.1%) a quarter of Wales’ population is over 65 which is below the number of usual residents aged 16 and below who make up 17.8% of Wales’ population.

Population estimates suggest that Wales is experiencing an aging population. According to mid-year 2020 data 21.1% of Wales’s population was over 65 whilst mid-year estimates for 2011 showed 18.5% of the population was over 65[[213]](#footnote-214).

The changes in population in Wales can in part be explained by the birth and death rate. Whilst live birth rates have steadily declined since 2011, the mortality rate over the same period has been more changeable with a low of 30,294 deaths in 2014. In mid-2019, the population of Wales was 3,152,879. Between 2019 and 2020, there were 35,819 deaths and 29,411 births, meaning a natural change of -6,408. However, during the same time period, Wales experienced a net migration of 23,115. Therefore, between 2019 and 2020 the overall population increase in Wales was 0.5% to a total population of 3,169,586[[214]](#footnote-215).

*Ethnicity*

At the time of the 2011 census, the most common and dominant ethnicity in Wales was White, followed by Asian/Asian British[[215]](#footnote-216). The majority of households in Wales have English as a main language. In approximately 1.4% of households at least one but not all persons over 16 have neither English nor Welsh as a main language and approximately 1.7% of households have no one who would have English or Welsh as a main language[[216]](#footnote-217).

*Religion*

At the time of the 2011 census 32.1% of the Welsh population considered themselves to have no religion. This compares to 57.6% of the population stating that they were Christian, 1.5% of the population stating that they were Muslim with Judaism, Buddhism, Hinduism and Sikhism each accounting for less than 0.5% of the total population.

*Disability*

Data from the Annual Population Survey estimates that there is a total of 416,600 people in Wales who are disabled. Of this population, 55.8% are female and 44.2% are male[[217]](#footnote-218). Over half of those identifying as disabled in the 16 to 64 age group are aged 45 to 64. There are an estimated 370,000 registered carers in Wales[[218]](#footnote-219) with recent research by Carers Wales estimating that 220,000 carers are juggling this responsibility with paid work[[219]](#footnote-220).

*Sexual Orientation*

Estimates from the 2020 Annual Population Survey indicate that 94.3% of the population of Wales aged 16 and over identify as Heterosexual or Straight. 1.5% identify as gay or lesbian, 1.4% identify as bisexual, and 1.3% identify with another sexual orientation[[220]](#footnote-221). The proportion of people identifying as LGB+ is higher in younger age groups.

*Economy & Labour Market*

The Annual Population Survey (year ending December 2020) records an employment rate in Wales of 72.8%. The economic activity rate is 75.6% of those of working age (16-64) whilst the economic inactivity rate was 24.4%[[221]](#footnote-222).

In terms of qualifications, 41.1% of working age adults (aged 18 to 64) in Wales had a qualification at level 4 or above (higher education level or equivalent) in 2020 and 7.3% of the population had no qualifications[[222]](#footnote-223).

Average gross weekly earnings in Wales for full time workers were £541.50 in 2020. If broken down by gender the average weekly pay for full time male workers was £562.70 whilst for female workers, the figure was £515.50[[223]](#footnote-224).

There is also a considerable pay gap in relation to those who are disabled. Research indicates that the size of the ‘disability pay gap’ varies depending on the exact type and nature of the disability.

As an example, research shows that men with learning difficulties have a pay gap of approximately 60%. The difference between non-disabled female workers earnings and that of a woman with a physical impairment can vary between 8% and 18% depending on the type of employment[[224]](#footnote-225).

Variations in earnings are also significant for Black, Asian and ethnic minority households with evidence suggesting that for example, typical Bangladeshi household incomes being 35% less than the White British median and typical Black African household incomes being 22% lower than the White British median[[225]](#footnote-226).

From March 2021 to May 2021 the economic inactivity rate for Wales was 23.4% for those aged 16-64. Compared to May 2011 to July 2011, the economic inactivity rate was 25.8%[[226]](#footnote-227).

*Transport & Travel*

Less than half (42%) of people in Wales have access to a car or van[[227]](#footnote-228) . It is reported that 18.3% of Welsh households have one car or van in their household and 10.9% of households have two cars in their household.

Car ownership varies considerably for those who share protected characteristics. The National Survey for Wales shows that of those in the 20% most deprived households in Wales, only 65% of households have use of a car compared to 89% of households within the 20% least deprived[[228]](#footnote-229). The National Survey for Wales shows that the most popular mode of transport used to get to work was car or van (75%)[[229]](#footnote-230).

DfT data shows that in the UK, car ownership levels are lower amongst BME groups with 41% of black people having no access to a car or van compared to 18% of white people[[230]](#footnote-231).

Amongst disabled groups 37% have no access to a car[[231]](#footnote-232).

It has also been reported that women only account for 35% of registered car keepers in the UK[[232]](#footnote-233) and that 27% of adults aged 17 years and over did not hold a full car driving licence in 2016.[[233]](#footnote-234)

The majority of those in employment in Wales drive to work by car or van (38.4%), 5.7% travel to work on foot, whilst 2.7% commute by bus[[234]](#footnote-235).

In terms of accessing other services (outside of employment), the National Survey for Wales carried out by the Welsh Government surveyed how easy people found accessing key infrastructure. This research found that older people (particularly those aged 75 and over) found it more difficult to get to hospital compared to younger people, and that getting to hospital was generally considered to be easier by those who had access to a car. For example, of those surveyed only 3% of those with a car said it was ‘very difficult’ to get to hospital, compared to 10% of those without[[235]](#footnote-236).

It has also been reported that public transport is a particular challenge for those from Black, Asian and ethnic minority backgrounds due to language barriers and not having the confidence to ask for help[[236]](#footnote-237).

**20mph and protected characteristic groups: assessment and evidence review**

The evidence available indicates that a 20mph speed limit has a neutral impact on protected characteristic groups of race, religion, sexual orientation, marriage, pregnancy and gender and is considered non-specific as a lower speed limit provides a safer environment for all road users [[237]](#footnote-238). However, for other protected characteristic groups, lower speed limits are likely to beneficial. This is discussed below.

*Age (all different age groups)*

The adoption of a default 20mph speed limit will particularly help older people and young people who are more likely to be involved in fatal road traffic collisions. Car occupant fatality rates per million population are particularly high for 17–24 year olds and those age 75 and over. Pedestrian fatality rates per million population are particularly high for those age 75 and over.

In 2018, 1137 people were killed or seriously injured in Wales, of which 80 were children. The largest proportion of these serious or fatal casualties occurred on roads with a 30mph speed limit[[238]](#footnote-239).

A measure that will reduce the severity of collisions will have a disproportionally positive impact on people in these age groups as it will encourage a change in travel behaviour helping people, including older people and young people, feel secure and safe[[239]](#footnote-240).

The creation of a safe and secure environment will increase the confidence of older people regarding road safety, walking and cycling, helping reduce social isolation which is particularly prevalent among people over the age of 65[[240]](#footnote-241).

Older people are likely to have decreasing physical capacity, however their mobility and independence should be maintained. The adoption of a 20mph speed limit would create a safer environment for older people including those using mobility scooters, allowing them to have opportunities for greater physical activity, safer travel, and mobility independence[[241]](#footnote-242).

The adoption of a 20mph default speed limit would increase accessibility of children to meet with friends and join groups and clubs. This will increase mobility independence among young people including disabled children

The proposals could also encourage driving more slowly generally and at a steady pace which improves fuel consumption and reduces particulate and carbon dioxide emissions. This is beneficial for people of all ages as the measure could contribute to improving people’s quality of life and encourage people to be healthier by using sustainable transport modes[[242]](#footnote-243).

*Disability*

There is a gap in the literature regarding the impact reducing the default speed limit will have on disabled people. However, evidence is available from lived experience, as expressed through feedback in focus groups, surveys responses and consultation. It is also assumed the dominance of speeding traffic creates a loss of mobility independence for disabled people due to feelings of danger and crossing the road being more hazardous where vehicles are travelling more quickly. A reduced default speed limit would result in a positive impact on disabled people due to the creation of a more pleasant and safer street environment, encouraging disabled people to travel[[243]](#footnote-244). This would also apply to disabled people using the road to travel such as users of mobility scooters.

*Sex*

In 2020, of all casualties caused by road collisions in Wales, 61.6% were male and 38.4% were female[[244]](#footnote-245). The adoption of a default 20mph speed limit aims to reduce the number and severity of road traffic collisions, benefitting all people. However, males may experience the benefits more given more road accident casualties are male.

*Low Income households*

Low-income households are not a protected characteristic as defined within the Equality Act 2010. However, it is considered appropriate to address the impact of the proposals on this group through the EqIA in order to improve inequality of outcome for people who experience socio-economic disadvantage (therefore meeting the socio-economic duty that is placed on the WG).

The Welsh 20mph Task Force Group recognises that road traffic injury is strongly associated with poverty, with child pedestrian deaths in areas of poverty being four times higher than those in affluent areas[[245]](#footnote-246). Reducing speeds through the application of area-wide 20mph speed limits would therefore help reduce road traffic injury’s including in places of social deprivation.

The adoption of a default 20mph speed limit aims to encourage people to engage more in active travel, as such, for benefits of a default 20mph speed limit to be wholly felt, access to active travel infrastructure within areas of poverty needs to be ensured to allow this modal shift.

**Communications and Marketing Strategy**

The 20mph Task Force Group represented organisations with protected characteristics including Disability Wales and Guide Dogs Cymru.

As noted in the Welsh 20mph Task Force Group Final Report, a communications and marketing strategy has been recommended to support implementation of the policy. This includes spending on broadcast advertising and close integration of campaigns with extensive community engagement. In order to ensure that the engagement is inclusive and can be accessed by all, it is recommended steps are taken to ensure equality. These steps could be an Easy Read version of information published, and large print, braille, audio and alternative language versions being made available upon request.

**Record of Impacts (by protected characteristic)**

The below table summarises the findings of this EqIA by protected characteristic.

Table 6 Summary of EqIA findings

| Protected characteristic or group | What (if any) are the positive or impacts of the proposal? | What (if any) are the negative impacts of the proposal? | Reasons for your decision (including evidence) | How will you mitigate Impacts? |
| --- | --- | --- | --- | --- |
| Age | **Older people:**  The measure will reduce the severity of crashes through the creation of a safe and secure environment, reducing social isolation felt by older people.  In relation to movement and exercise the legislation is expected to have a beneficial change to older people’s health  **Younger people:** See below. | N/A | Older people are more likely to be involved in fatal road traffic collisions. Car occupant fatality rates per million population are particularly high for those age 75 and over.  Pedestrian fatality rates per million population are particularly high for those age 75 and over75 | N/A |
| Disability | A reduced default speed limit would result in a positive impact on people with an impairment or health condition due to the creation of a more pleasant street environment, encouraging this group of people to travel[[246]](#footnote-247). | N/A | There is some evidence to suggest that reduced speed limits create a generally safer environment. Disabled people also report that slower speeds contribute to feelings of safety within road environments. | N/A |
| Children and young people up to the age of 18 | The adoption of a 20mph default speed limit will improve safety for children using residential streets. This will increase children’s accessibility to meet with friends and join groups and clubs. This will increase mobility independence among young people including disabled children.  In relation to movement and exercise the legislation is expected to have a beneficial change to young people and children’s health. | N/A | The adoption of a default 20mph speed limit will particularly help young people. Younger people are more likely to be involved in fatal road traffic collisions. Car occupant fatality rates per million population are particularly high for 17–24 year  In 2018, 1,137 people were killed or seriously injured in Wales, of which 80 were children. The largest proportion of these serious or fatal casualties occurred on roads with a 30mph speed limit[[247]](#footnote-248). | N/A |
| Sex / Gender | The adoption of a default 20mph speed limit aims to reduce road traffic collisions benefitting all people. However, people that are male may feel the benefits more given more road accident casualties are male. | N/A | Of all casualties caused by road collisions in Wales 61.6% were male and 38.4% were female[[248]](#footnote-249). | N/A |
| Low-income households | Reducing speeds through the application of area-wide 20mph speed limits would help reduce road traffic injuries including in places of social deprivation. | N/A | Child pedestrian deaths in areas of poverty are over four times those in affluent neighbourhoods[[249]](#footnote-250) | Access to active travel infrastructure within areas of poverty needs to be ensured to allow modal shift that enhances benefits identified. |
| Gender Reassignment (the act of transitioning and Transgender people) | N/A | N/A | N/A | N/A |
| Pregnancy and maternity | N/A | N/A | N/A | N/A |
| Race | N/A | N/A | N/A | N/A |
| Religion, belief and non-belief | N/A | N/A | N/A | N/A |
| Sexual orientation (Lesbian, Gay and Bisexual) | N/A | N/A | N/A | N/A |
| Marriage and civil partnership | N/A | N/A | N/A | N/A |

**Human Rights and UN Conventions**

Overall, it is considered that the proposals would have a positive impact on people’s human rights for the reasons outlined below.

The adoption of a default 20mph speed limit would increase people’s quality of life, and physical and mental health. The legislation would have either neutral or beneficial impact on target groups, maintaining or improving people’s access to work and leisure in accordance with Articles 2, 23 and 24 of the Universal Declaration of Human Rights.[[250]](#footnote-251)

**Conclusion**

In consideration of the evidence presented and the subsequent assessment undertaken in this EqIA it is anticipated that there would be positive effects of a minor or moderate magnitude as result of the proposals on equality, with neutral impact on certain target groups.

It is considered that in putting forward the recommendation to adopt a default 20mph speed limit, the Welsh Government would be acting in accordance with the Public Sector Equality Duty as outlined within the Equality Act 2010. They would also be acting within their duty to improve inequality of outcome for people who suffer socio-economic disadvantage.

**\*\* Evidence Table and Gap Analysis \*\***

The table below summarises selected key evidence used in the assessment of impacts on equality and highlights key gaps, if any.

| Evidence/data required | Source |
| --- | --- |
| Statistics | ONS (2019) Annual Population Survey |
| <https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Estimates/nationallevelpopulationestimates-by-year-age-ukcount> |
| <https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Components-of-Change/componentsofpopulationchange-by-timeperiod-component> |
| <https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Components-of-Change/componentsofpopulationchange-by-timeperiod-component> |
| ONS (2011) Census Data KS206EW – Household language [downloaded from Nomis 23 August 2019] |
| [StatsWales (2019) Disability by Age and Sex](https://statswales.gov.wales/Catalogue/Equality-and-Diversity/Disability/disabilitystatus-by-age-sex) [accessed 23 August 2019] |
| Social Care Wales (2018) Preventative support for adult carers in Wales: rapid review |
| Social Care Wales (2018) Preventative support for adult carers in Wales: rapid review |
| [Diverse Cymru (2019) Sexual Orientation Inequality in Wales.](https://www.diversecymru.org.uk/protected-characteristics/sexual-orientation/?doing_wp_cron=1566568103.3083140850067138671875#references) |
| ONS (2019) Sexual orientation |
| <https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Employment/Persons-Employed> |
| <https://statswales.gov.wales/Catalogue/Education-and-Skills/Post-16-Education-and-Training/Data-For-Regions-of-Wales/highestqualificationlevelofworkingageadults-by-region-localauthority> |
| [Average (median) gross weekly earnings by Welsh local areas and year (£) .](https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Earnings/medianweeklyearnings-by-welshlocalareas-year)  Economic inactivity rates by UK region. StatsWales. <https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Economic-Inactivity/economicinactivityrates-by-ukcountryenglishregion-quarter> |
| [Simonetta Longhi, Institute for social and economic research, University of Essex. *The Disability Pay Gap.* Equality and Human Rights Commission (2017). Research Reprot 107, Pay gap research.](https://www.equalityhumanrights.com/sites/default/files/research-report-107-the-disability-pay-gap.pdf) |
| [Corlett, A. (2017) Diverse Outcomes: Living Standards by Ethnicity](https://www.resolutionfoundation.org/publications/diverse-outcomes-living-standards-by-ethnicity/) |
| [Economic inactivity rates by UK country/English region and quarter (seasonally adjusted)](https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Economic-Inactivity/economicinactivityrates-by-ukcountryenglishregion-quarter) |
| ONS (2011) 2011 Census Data - QS416EW - Car or van availability |
| Welsh Government (2014) National Survey for Wales – Transport |
| Independent Transport Commission (2015) On the Move: Exploring attitudes to road and rail travel in Britain |
| DfT (2014) National Travel Survey, Disability and travel 2007-2014 |
| [Is Britain Fairer? —The state of equality and human rights 2018 Equality and Human Rights Commission 2018](https://www.gov.uk/government/publications/is-britain-fairer-the-state-of-equality-and-human-rights-2018) |
| [ONS (2011) 2011 Census Data WD703EW - Method of travel to work](https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/2011censusdetailedcharacteristicsontraveltoworkandcarorvanavailabilityforlocalauthoritiesinenglandandwales) |
| <https://statswales.gov.wales/Catalogue/Transport> |
| Age | [20 mph Task Force Group report, Review on reducing the default speed limit on restricted roads to 20mph in Wales and the changes that need to take place (2020)](https://gov.wales/20mph-task-force-group-report) |
| [Tackling loneliness and social isolation: the role of commissioners | SCIE](https://www.scie.org.uk/prevention/connecting/loneliness-social-isolation/) |
| <https://www.scie.org.uk/prevention/connecting/loneliness-social-isolation/> |
| Disability | [Memorandum by Transport 2000 (RTS 08, The nature and effects of illegal and inappropriate speed in the UK](https://publications.parliament.uk/pa/cm200102/cmselect/cmtlgr/557/557ap10.htm) |
| Sex | [Casualties by Local Authority, vehicle type, gender, severity (2020)](https://arup.sharepoint.com/teams/prj-28340900/Data%20and%20Documents%20Library/08%20Report%20Drafting/IIA/Casualties%20by%20Local%20Authority,%20vehicle%20type,%20gender,%20severity%20(2020)%20https:/statswales.gov.wales/Catalogue/Transport/Roads/Road-Accidents/Casualties/numberofcasualties-by-gender-typeofvehicle-severity-date-policeforcearea) |
| Low-income households | [Abdalla, I., Barker, D., Raeside, R. 1997. Road accident characteristics and socio-economic deprivation. Traffic Engineering and Control, December, 672-676](https://trid.trb.org/view/477291) |
| Evidence Required | |
| Data regarding the impact reducing the default speed limit on disabled people. | |
| There is a need to closely monitor the scale of impact a 20mph default speed limit will have on age and low-income households. | |

# Children’s Rights Impact Assessment

**Overview**

This Children’s Rights Impact Assessment relates to the Welsh Government’s proposal for changing the default speed limit for restricted roads within Wales to 20mph. In May 2019 the Wales 20mph Task Force Group was formed which identified the outcomes which would be expected from changing the default speed limit for restricted roads in Wales to 20mph, including and the likely impact the proposed changes would have on Children and young people in Wales. For more information about the nature and purpose of the proposal please see the Overview and Section 1 of this IIA.

**Impact of proposal on children and young people**

In surveys of children’s school travel mode across the UK, the top concern of parents/ guardians is fear of motor traffic. This fear then leads to the vicious spiral of increased danger as more people drive their children to school, resulting in increased danger from traffic around the school gates and for those who do choose to walk. It can also lead to a loss of a child’s independent travel, which is associated with substantial loss of physical, mental and social health benefits and can establish habitual sedentary behaviours across the life-course.

Research has helped understand the potential issues and opportunities associated with the proposals and children and young people. Pertinent points include:

1. In 2018, 1137 people were killed or seriously injured in Wales, of which 80 were children. The largest proportion of these serious or fatal casualties occurred on roads with a 30mph speed limit[[251]](#footnote-252).
2. Child pedestrian deaths in deprived neighbourhoods are over four times those in affluent neighbourhoods[[252]](#footnote-253).
3. Introducing 20mph zones appeared effective at reducing the number and severity of collisions and casualties (nine studies, six from the UK)[[253]](#footnote-254).
4. Young people, particularly those aged between 17 and 20 are more reliant on buses than any other group, largely using services between school and home[[254]](#footnote-255).
5. 40% of all child road casualties are pedestrians and 13% of all child road casualties are cyclists[[255]](#footnote-256).
6. There are large geographic and gender differences in the rate of child casualties – rates were highest in urban areas and boys were at higher risk of being hurt than girls throughout childhood and across all modes of transport[[256]](#footnote-257).

First Minister of Wales Mark Drakeford MS stated:

*“we know that 20mph zones reduce speed of traffic, reduce accidents- particularly accidents to children- and we want to see that becomes the default position right across Wales[[257]](#footnote-258)”*

The adoption of a default speed limit of 20mph would play an important part in tackling road danger. There is overwhelming evidence that lower speeds result in fewer collisions and in reduced severity of collisions and injuries[[258]](#footnote-259). The higher the speed the longer it takes to stop the vehicle and the greater the harm on impact. At the point a 20mph car would have stopped, a 30mph car would still be doing 24mph[[259]](#footnote-260).

The adoption of a default speed limit of 20mph may also encourage people to engage more in active travel modes such as walking and cycling. Active Travel is good for people’s mental and physical health (including children and young people’s mental health) as a result of increased physical activity, and when it replaces a car trip helps to reduce carbon emissions and improve air quality. In addition, more walking and cycling produce more cohesive and safe communities for people to live, work and socialise in.

Slower traffic speeds are an important way of reducing people’s perception (including children and young people) of road danger thus encouraging more people to walk and cycle. The statutory guidance published by the Welsh Government on Active Travel260[[260]](#footnote-261) notes:

*“Setting appropriate speed limits has significant benefits for pedestrians and cyclists, and the use of 20mph limits is encouraged and supported by the Welsh Government, particularly in residential areas”*

*Children in poverty*

Road traffic injury is also strongly associated with poverty[[261]](#footnote-262). Wales has the highest rate of child poverty of any nation in the UK with around 200,000 children living in poverty[[262]](#footnote-263). Given child pedestrian deaths are over four times those in affluent neighbourhoods,[[263]](#footnote-264) the introduction of a default speed limit of 20mph in residential areas would help to improve behaviour associated with vehicle/ pedestrian interaction, reducing child pedestrian deaths particularly among those in poverty.

A study undertaken by Smith, Jones and Hanna (2022) found that between 2017-2019 boys aged 11-16 years had the highest road injury rates. These injuries peaked at school journey times and mostly occurred in deprived areas. The study concluded that improved road safety is needed in all communities but must be enhanced in areas that are most deprived[[264]](#footnote-265).

In March 2019 the Children’s Commissioner for Wales published A Charter for Change: Protecting Welsh Children from the Impact of Poverty. This was the culmination of work with 550 children and young people, as well as professionals and parents, seeking to find the practical changes that could be made in Wales to ease the impact of child poverty on families. The cost and availability of transport was something that children and young people felt passionately about. This was particularly the case for children and young people in rural areas but was evident for those living in city or town suburbs too.

The adoption of a default 20mph speed limit aims to promote modal shift for those travelling to school from car to public transport and active travel modes. However, considering the finding from ‘A Charter for Change: Protecting Welsh Children from the Impact of Poverty’, for the benefits of a default 20mph speed limit to be wholly felt, access to reliable and cheap public transport and active travel infrastructure within areas of poverty needs to be ensured to allow this modal shift.

*Children and Families (Wales) Measure 2010*

The Children and Families (Wales) Measure 2010 aims to tackle child poverty within Wales. Section 11 of the measure places a duty on local authorities to secure sufficient play opportunities for children in their areas, so far as reasonably practicable, having regard to their play sufficiency assessments. There is also the requirement for local authorities to publish information about play opportunities in their areas and to keep this information up to date.

It is anticipated that the proposals could assist local authorities in producing their play sufficiency assessments and allow them to fulfil their duties under the Children and Families (Wales) Measure 2010, positively impacting children and young people.

It is considered the absence of play from a child’s life would be detrimental to the child, their family and for society as a whole[[265]](#footnote-266). Play is fundamental as it allows children to use their “creativity while developing their imagination, dexterity and physical, cognitive and emotional strength”[[266]](#footnote-267). Play allows children to learn how to work in groups, negotiate and build confidence and self-advocacy skills. Where there is a lack of play children may suffer from a play deficit, this can be caused by either play deprivation; a result of either a chronic lack of sensory interaction with the world’, or ‘a neurotic, erratic interaction, or play bias; a loading of play in one area of experience or another, having the effect of excluding the child from some parts of the total play experience[[267]](#footnote-268).

Play Wales, a national charity for children’s play, supports initiatives that reclaim the streets and neighbourhoods for children and teenagers to be able to range and play. Play Wales’ response to the 20mph public consultation stated that some barriers to children playing outside on streets include parental fears of the volume and speed of traffic creating an unsafe environment for their children.

In response to the proposal, Play Wales highlighted the success of their playing out events where a residential road is closed off to traffic to ensure safety and freedom of movement for participants. While the play events involve the closure of roads and not the implementation of a 20mph speed limit, it was found the reduction in volume and speed of traffic as a result of the playing out events has led to children being 3 to 5 times more active than they would on a ‘normal’ day after school. It was also found that children learn about road safety during playing out sessions. A survey of playing out streets conducted in 2017 also found that the majority reported that children had learned or improved skills including riding a bike (80%), scooting (85%), roller skating (63%) and skipping (66%)[[268]](#footnote-269)

It is reasonable to conclude, based on the above evidence, that reduction in the speed of traffic associated with the 20mph policy would also have positive effect on the level of outdoor activity amongst children. The success of the playing out events demonstrates the positive impact the reduction in the default speed limit could have on children, their feelings of safety, their ability to play and their mobility. It was also found that the playing out events are most common in affluent areas populated by working and educated parents. As such, the proposed speed change could have more of a positive impact on children living in deprived areas who may not have access to the resources to implement a playing out event on their street. The reduction of vehicle speed as a result of the proposal could provide the benefits experienced from the playing out events onto streets in deprived areas permanently.

*Child health*

In relation to movement and exercise the 20mph policy is expected to have a beneficial impact on young people and children’s health. This is due to an expected increase in walking and cycling (as perceptions of safety improve), leading to an increase in physical activity among children, resulting in associated health benefits.

Between April 2010 and July 2014 the number of CAMHS (Children and Adolescent Mental Health Service in Wales ) referrals to treatment in Wales doubled[[269]](#footnote-270), and with increased stress and anxiety among children following the Covid-19 outbreak[[270]](#footnote-271) mental health within Wales has become a prevalent issue.

The adoption of a default 20mph speed limit would result in slower speeds which are likely to create an environment which is safer for children to travel in, helping encourage children to spend time outside and increase their levels of physical activity. Studies have found that increased physical activity and time spent outdoors results in improved mental health and well-being among children and young people[[271]](#footnote-272),[[272]](#footnote-273).

Reducing the default speed limit from 30mph to 20mph could also provide parents and children with more confidence regarding children’s independent mobility. This is particularly pertinent to disabled children.

In 2018 the Children’s Commissioner for Wales also worked with Community Action Research Policy Collaborations (CARP) to engage with children and young people with learning difficulties and their families to discuss the route towards independent travel. Young people highlighted they fear being socially isolated, while the parents stated their child’s reliance on them for transport. The adoption of a 20mph default speed limit would reduce children and disabled children from being socially isolated due to improved road safety, decreasing child casualties and increasing confidence in child’s independent mobility.

Poor air quality is the largest environmental risk to public health in the UK, with long term exposure to air pollution causing conditions such as cardiovascular disease and respiratory diseases[[273]](#footnote-274). In the UK it is estimated that long-term exposure to man-made air pollution in the UK has led to 28,000 to 36,000 deaths annually[[274]](#footnote-275).

More research is needed to determine the relationship between a 20mph speed limit and any increase in a modal shift towards more active travel, and less private car use. From an air quality perspective, a decrease in private car use has the potential to decrease emissions. This would be a particularly beneficial change to children and young person’s health as they are particularly vulnerable to changes in air quality. As more data is gathered around the way in which reduced speeds affect air quality, more informed assessments can be made about the impact the proposals could have on children and young people’s physical health.

Overall, the adoption of a default 20mph speed limit is expected to result in benefits to children and young person’s physical and mental health. This is as a result of increased mobility independence, increased physical activity, and a decrease in social isolation as a result of facilitating young people to meet with friends and join groups and clubs within a safer environment.

*Education*

Within the UK nearly two thirds of parents do not have confidence that their children have a good understanding of the dangers of the road with 17% of parents thinking their children know the rules but do not concentrate when near roads[[275]](#footnote-276). Road Safety Wales,[[276]](#footnote-277) who are responsible for road safety promotion, highlight the importance of advancing child road safety education and advise and support parents, carers, pre-school staff and teachers on both best practice and resources available to them[[277]](#footnote-278).

There are current schemes and programmes in place within Wales which aim to educate children and young people about road safety during primary and secondary education, these include;

* Child Pedestrian Training;
* Cycle Training;
* Pass Plus; and
* Mega Drive

The adoption of a default 20mph speed limit is expected to slightly benefit child education surrounding road safety, particularly when enforcing the 20mph speed limit. The 20mph Task Force Group report[[278]](#footnote-279) highlights enforcement could be in the form of a Junior Speedwatch in addition to core camera sites and police officers on the road. A similar approach has been taken by the Metropolitan Police in London.

The Metropolitan Police Force have created a Junior Speedwatch using school children to educate drivers found speeding in the proximity of schools. This will also educate school children regarding public concerns, fears and freedom to choose healthier lifestyles relating to travel. This is also in line with the Well-being of Future Generation (2015) Act as educating children and young people on the benefits of a reduced default speed limit would contribute to creating a Globally Responsible Wales. However, funding and governance arrangements, as well as the extent and nature of the areas covered, do vary between Police areas across the UK and so the policy and practice of these Police forces may not be appropriate for Wales[[279]](#footnote-280).

*Consultation*

The public consultation on reducing the speed limit to 20mph on restricted roads in Wales found 74% of respondents were concerned and 52% were very concerned about children being involved in an accident. Amongst the responses from the organisations one of the main reasons for supporting the change in speed was that it would improve the safety of residents, communities and especially children and their ability to play more safely. People who were aged 16 and above were able to participate in the consultation and there was a marked difference of opinion among age groups on the need to reduce the speed limit on restricted roads; 18% of those in the youngest age group (16-24) were in favour of the proposal compared with 60% of the oldest age group (60+).

Respondents from the pilot areas of St Brides Major, St Dogmaels and Llanelli North also stated that the introduction of a 20mph speed limit have created a safer playing environment for children playing outside the front of houses. Slower traffic also created an increased sense of safety for pedestrians walking alongside a main road and when walking children to school or crossing the road.

The consultation asked those with school age children whether they and their children would use active travel methods more often to get to school if the speed limit on restricted roads was reduced to 20mph. Overall, around one in four parents of school age children (27%) said they would do so more, but twice as many (54%) said they would not. The remaining 19% did not give an answer. Among those in favour of the reduction in the speed limit, a majority of almost six in ten parents (57%) said they would use active travel methods more often, compared to 1% of parents who were against the change.

There was concern that the change from 30mph to 20mph may lead to a heightened sense of perceived safety which would create an unintended consequence of children not taking as much care when crossing the road as currently with a speed limit of 30mph.

In response to the public consultation and raised within discussion, Play Wales stated they were strongly in favour of the proposal to reduce the default speed limit to 20mph and highlighted how the proposal complements their initiative of playing out events. Play Wales highlighted that parents and children often report traffic and unknown adults as a limiting factor to play in neighbourhoods. Play Wales considers the proposal is an innovative and creative community based highway solution which will have the biggest impact on children and young people. It is considered that more people playing out more of the time can improve community cohesion and strengthen intergenerational relationships as well as make children more viable in their communities.

In March 2022 Children in Wales conducted a Children and Young people’s focus group which discussed reducing the speed limit to 20mph. Four people attended this focus group and therefore the group was not representative of all children and young people within Wales. However, the focus group allowed Welsh Government to acknowledge the views of young people about the proposal and the potential impact the proposal could have on children and young people. The attendees stated there was a problem with noise and vibrations of vehicles, cars speeding and children not looking when crossing the road. An issue was also raised about road safety and not feeling safe when cycling on the road. It was suggested that the implementation of a 20mph speed limit could increase levels of cycling, walking and public transport among children and young people and that it would create a safer environment. However, it was stated that the group did not think people would follow the new speed limit and that the implementation of a 20mph speed limit may be more appropriate on roads surrounding schools only. It was also highlighted that the implementation of a 20mph speed limit needs to be considered amongst other strategies to make communities feel safer and happier.

**Conclusions and monitoring**

There has been careful consideration of the relevant Articles set out within the Rights of Children and Young Persons (Wales) Measure 2011. The approach to progressing the legislation has and will continue to consider the rights of children and young people. The following Articles within the Measure are considered to be most relevant in terms of likely impacts on children and young people:

Article 15 – “Your right to meet with friends and join groups and clubs”; the proposal would create a safer street environment which would promote children and young people’s mobility, including their ability to meet friends and groups.

Article 23 – “Your right to special care and support if you have a disability so that you can lead a full and independent life”; a reduced default speed limit would result in a positive impact on disabled people due to the creation of a more pleasant and safer street environment, encouraging disabled people to travel, including disabled children[[280]](#footnote-281).

Article 28 – “Your right to learn and go to school”; The proposal would create a safer street environment which would allow children to travel to school more easily and safely. The proposals are also likely to improve child education surrounding road safety, particularly when enforcing the 20mph speed limit.

Article 31 – “Your right to relax and play”. In regard to article 31 the UNCRC provides the general comment (number 17) that children should have an environment sufficiently free from traffic and other physical hazards to allow them to circulate freely and safely within their local neighbourhood[[281]](#footnote-282). The adoption of a 20mph speed limit will help to create streets which will allow children and young people to travel, play and move around safely.

It is recommended as part of the phased implementation of the proposed default 20mph speed limit that children and young people should be consulted with to gather information regarding opinions and potential additional impacts on children and young people.

Overall, it is anticipated there could be positive effects on children and young people as a result of the proposal. While further evidence is required to determine the extent to which reducing speeds through the application of area-wide 20mph speed limits improved air quality, it is concluded the adoption of a default 20mph speed limit could achieve the following:

1. Help reduce health inequalities among children and young people, particularly among those in poverty.
2. Increase physical activity and decrease social isolation and improve mental health among children and young people.
3. Educate children and improve their knowledge of road safety

Consultation responses also suggest that there would also be support for the change from parents and those with children of school age as the proposal could create a safer playing environment and safer route to school.

However, as highlighted by the Children and Young People’s focus group conducted in March 2022, multiple strategies need to be considered alongside the implementation of a 20mph speed limit for the benefits of the legislation to be fully felt by children and young people. This could include the need for coherent and consistent national provision of quality and reliable public transport and active travel infrastructure to encourage public transport and active travel uptake among children and young people. This is particularly relevant for children and young people due to their limited options for individual travel arrangements. Enforcement of a default 20mph speed limit would contribute to the education of children and young people regarding road safety and the benefits of a reduced speed limit, however the extend of this is subject to funding and governance arrangements, as well as the extent and nature of the areas covered by police within Wales.

Given the stage of this legislation there has been limited consultation with children and young people. However, this Children’s Rights Impact Assessment utilises a number of pieces of evidence which have considered and involved children and young people within their research.

Given the scale of change is uncertain at this stage, it is recommended that monitoring is carried out in regard to impacts on children. At that stage, once the proposals have been implemented, further engagement with children and young people, including those with impairments, could be undertaken to gain a more comprehensive understanding of how the proposed changes impact children and young people.

**\*\* Evidence Table and Gap Analysis \*\***

The table below summarises selected key evidence used in the assessment of impacts on children and young people and highlights key gaps, if any.

| Evidence/data required | Source |
| --- | --- |
| Statistics | [Welsh 20mph Task Force Group – Final Report, July 2020](https://gov.wales/20mph-task-force-group-report). |
| [Abdalla, I., Barker, D., Raeside, R. 1997. Road accident characteristics and socio-economic deprivation. Traffic Engineering and Control, December, 672-676](https://trid.trb.org/view/477291) |
| [Cleland LC, McComb L, Kee F, et al. Effects of 20mph interventions on a range of public health outcomes: a meta-narrative evidence synthesis. J Transport Health 2019](https://www.research.ed.ac.uk/en/publications/effects-of-20-mph-interventions-on-a-range-of-public-health-outco). doi:10.1016/j.jth.2019.100633. |
| [Is Wales Fairer? The state of equality and human rights (2018)](https://www.equalityhumanrights.com/en/publication-download/wales-fairer-2018) |
| [Child road casualties (racfoundation.org)](https://www.racfoundation.org/media-centre/child-road-safety-press-release) |
| [Child\_casualty\_mini\_report\_2014\_final.pdf (racfoundation.org)](https://www.racfoundation.org/wp-content/uploads/2017/11/Child_casualty_mini_report_2014_final.pdf) |
| On the move: Exploring attitudes to road and rail travel in Britain (2015) |
| Lower speeds result in fewer collisions and reduced severity of collisions and injuries | [MASTER Project, 1999. Managing speeds of traffic on European roads. Transport Research, Fourth Framework Programme Road Transport. Luxembourg: Office for Official Publications of the European Communities.](https://trimis.ec.europa.eu/project/managing-speed-traffic-european-roads) |
| [International Transport Forum/OECD, 2018. Speed and Crash Risk. Paris: OECD](http://www.itf-oecd.org/sites/default/files/docs/speed-crash-risk.pdf) accessed 18th |
| Children in Poverty | [Abdalla, I., Barker, D., Raeside, R. 1997. Road accident characteristics and socio-economic deprivation. Traffic Engineering and Control, December, 672-676](https://trid.trb.org/view/477291) |
| <https://www.poverty.ac.uk/report-wales-child-poverty/wales-has-worst-child-poverty-uk> |
| [Abdalla, I., Barker, D., Raeside, R. 1997. Road accident characteristics and socio-economic deprivation. Traffic Engineering and Control, December, 672-676](https://trid.trb.org/view/477291) |
| Child Health | [Health matters: air pollution - GOV.UK (www.gov.uk)](https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution) |
| [FF16 Wales.pdf (mentalhealth.org.uk)](https://www.mentalhealth.org.uk/sites/default/files/FF16%20Wales.pdf) |
| [Increased support for children’s mental health following Covid-19 outbreak | GOV.WALES](https://gov.wales/increased-support-childrens-mental-health-following-covid-19-outbreak) |
| Burns, A, Johnstone, N., Macdonald, N. 2001. 20mph speed reduction initiative. Edinburgh: Scottish Executive Central Research Unit |
| Child Education | [Education (roadsafetywales.org.uk)](https://www.roadsafetywales.org.uk/education/) |
| [Encouraging child road safety awareness (morayclaims.co.uk)](https://morayclaims.co.uk/encouraging-child-road-safety-awareness/) |
| [20mph-task-force-group-report.pdf](file:///C:/Users/Heulwen.Hill/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/VT1Y9V1D/20mph-task-force-group-report.pdf) |
| Evidence required | |
| Further research may be required to determine the scale of the impact adopting a 20mph default speed limit has on a Children and Young persons.  Further consultation could be carried out with children and young people in addition to the Children’s Commissioner for Wales to further understand the potential impacts on children and young people. | |
|  | |

# Rural Proofing Impact Assessment

The Rural Proofing Impact Assessment aims to consider the impacts, both positive and negative, of the proposed adoption of a default speed limit of 20mph on restricted roads within Wales. Additionally, the Rural Proofing Impact Assessment considers how the proposals will address the needs of rural areas.

The transport network, including the road network, is vital to the development of the rural areas as it plays a pivotal role in helping ensure people can access community services, facilities employment opportunities, education and training, and leisure and recreation[[282]](#footnote-283). Rural communities have diverse needs and are typically low density and sparsely located. The population of rural areas fall into two broad transport categories: those than can afford private cars and those that are reliant on public transport[[283]](#footnote-284). Therefore, the impact of a default 20mph speed limit on restricted roads will have on both private car journeys and rural public transport will be considered within this assessment. Relevant stakeholder engagement responses and results from the pilot areas are also used.

The impact the adoption of a 20mph speed limit will have on people, communities and businesses is discussed within this assessment, seeking to respond to the requirements of the Rural Proofing Impact Assessment as set out in the Welsh Government’s IIA Guidance.

*Impacts of people and communities*

Drivers perceive rural roads to be less risky than urban roads, even when similar scenarios occur in both environments[[284]](#footnote-285). However, in 2016, 1015 people were killed in rural road collisions, compared to 593 killed in urban road collisions in Great Britain[[285]](#footnote-286). In particular, collisions involving pedestrians and cyclists were more likely to be fatal in rural areas compared to urban areas[[286]](#footnote-287). The reduction of safety from urban to rural areas could be due to a lower level of speed limit signage, design of the road such lack of pavement and minimal crossing places. The presence of slow-moving agricultural vehicles combined with a lack of driver awareness was also noted as an issue along with where the national speed limit applies over a wide area and then changes dramatically when passing through villages, resulting in drivers being less responsive to speed limits at these locations[[287]](#footnote-288).

While there are relatively fewer restricted roads in rural areas compared to built-up areas, the reduction in the default speed limit is expected to result in safer roads in both rural and more urban parts of Wales. There is overwhelming evidence that lower speeds result in fewer collisions and in reduced severity of collision and injuries[[288]](#footnote-289). This would have a positive impact on the rural population as the perceived and actual risk for drivers, walkers and cyclists will reduce292.

From all the pilot areas across Wales it was highlighted that the reduction the default speed limit resulted in slower traffic and better pedestrian safety. Looking at the pilot study area of St Brides (which is located in a rural setting), there was a reduction in speed across all sites, particularly at ‘site 3’ with over 50% of vehicles travelling below 25mph from 7am during an average weekday. Site 3 is in close proximity to St Brides Major Primary School, and as such it can be noted that the change of a default speed limit can also benefit young people living in rural areas, making their journey to school safer.

‘Site 4’ within the pilot area of St Brides did experience a reduction in speed limit, however traffic speed still remained high and above 20pmh. The minimal reduction in speed limit could be explained by concerns that the default speed limit was being ignored, that there was a lack of enforcement, and that the default speed limit was considered not be needed within the given area. Feedback from the pilot areas suggested the default speed limit should be targeted to areas where the perceived risk is the highest.

The Welsh Government recognises there may be the need for local exceptions to the default speed limit. This may be particularly relevant to rural areas as they typically cover a small area, may be sparsely populated with a small density of residential and retail premises. The decision to exempt a road to the 20mph speed limit will be the decision of the local authority who will utilise a GIS mapping tool, place criteria, and local knowledge of the area to make an informed decision. The exceptions process will ensure the transport network within rural areas is efficient and that the risk of driver non-compliance is reduced.

When looking at the results from the public consultation, one in three respondents said they would walk more, cycle more and scooter more if a 20mph speed limit were introduced. These benefits are likely to also be experienced in rural areas. The expected increase in walking and cycling is due to the reduction in speed limit reducing people’s perception of road danger[[289]](#footnote-290). Increasing walking and cycling is an important policy goal of the Welsh Government, therefore the adoption of a 20mph default speed limit will allow rural streets to enable and encourage active travel, creating more cohesive and safe rural communities for people to live, work and socialise in.

Concern was raised in the St Dogmaels within St Dogmaels 20s Plenty for Us public consultation response, stating within the pilot settlements during Phase 1 of the programme (see Section 1.3) there was still a percentage of non-compliant speeders who may need both positive reasons and enforcement encouragement to comply with the adoption of a 20mph. It was also stated that the village considered that enforcement would not be prioritised or the speed limit enforced due to St Dogmaels being a small rural village.

Social isolation can be particularly high in rural areas. Many of those who live in rural areas have more restricted opportunities for social interaction, particularly those who do not leave home to go to work such as farmers, older people, parents with young children and unemployed[[290]](#footnote-291). The Covid-19 pandemic has also increased the number of people who work from home. Rural communities also have infrequent, inaccessible or even non-existent public transport infrastructure which can dissuade people from taking up opportunities to engage with their local communities[[291]](#footnote-292). The adoption of a default 20mph speed limit would increase the attractiveness of walking and cycling in rural areas, which would possibly increase social connectivity within rural areas as social interaction within the local community would increase due to more walking and cycling.

It should also be noted that social isolation and loneliness can have a negative impact on mental and physical health. Loneliness and isolation can be as harmful to health as smoking 15 cigarettes a day and puts people at a 50% increased risk of an early death compared to those with good social connections[[292]](#footnote-293). Loneliness can also contribute to a person’s general health and wellbeing and likelihood of obesity[[293]](#footnote-294). As such the creation of an attractive rural environment which encourages connectivity would also improve the physical and mental health of people living in rural areas.

*Low-income individuals and the need for rural public transport*

While population densities are different, statistics demonstrate that economic inactivity is slightly higher in rural areas than in urban areas.

In 2021, the economic activity rate in Wales was 75.4% of those of working age (16-64) whilst the economic inactivity rate was 24.6%[[294]](#footnote-295). For this period in mid and southwest Wales, where the areas are predominantly classed as rural village or rural village in a sparse setting[[295]](#footnote-296), 23.5% of people aged 16-64 were economically inactive[[296]](#footnote-297) and in an urban city or town such as Cardiff[[297]](#footnote-298), 22.6% of people aged 16-64 were economically inactive[[298]](#footnote-299).

Low car ownership is likely within this economically inactive group related to a lack of sufficient income to meet the initial high cost (including vehicle purchase and insurance) and running costs. Individuals in rural areas without a car have much poorer access to key services, compared with rural car owners and individuals residing in urban areas[[299]](#footnote-300). As such, rural public transport is vital to the development of rural areas because it has a pivotal role in helping ensure people, especially those on low incomes living in rural areas, to access community services, facilities employment opportunities, education and training, and leisure and recreation[[300]](#footnote-301).

One concern highlighted within the Task Force report is that the adoption of a 20mph default speed liming will significantly increase journey times, both generally and for particular types of traffic such as buses. As bus services are normally efficiently planned around resource availability, (i.e., driver and vehicles) and are scheduled to maximise service level, coverage and connectivity, the additional time that may be required to operate a route could impact on the future delivery, frequency and cost of the service. The Task Force Group highlighted the potential impact of the reduced speed limit will need to be considered carefully by local authorities when assessing whether exceptions to 20mph limits on bus routes are justified. This is particularly pertinent to rural areas given the importance of a reliable bus service for those living on low income and that many roads within rural areas could be exempt from the default speed limit.

The response received from the bus industry CPT Cymru consultation responses echoed the Task Force’s concerns that an increase in journey times has a material impact on bus operation. Concern was raised that the proposal makes the bus services less appealing in terms of journey times for passengers which could reduce patronage and mitigate against the Welsh Governments modal shift ambitions. CPT Cymru highlights the need for local authorities to consider using the exception rule on key arterial routes that could be maintained at 30mph. This thought could also be applied to arterial routes within rural areas. However, CPT Cymru generally welcomed the proposal welcomes the proposal for a 20mph speed limit in residential areas. Vehicles operated by our members often run at slower speeds in residential areas and as such we would hope that the sector can make a positive contribution to the proposal’s road safety aims. CPT Cymru believes modal shift should be a key consideration for local authorities and Welsh Government in how the proposals are implemented and look forward to working with all parties to ensure implementation can take account of these factors.

*Impact on rural businesses and the rural economy*

One of the seven well-being goals advocated by the Well-being of Future Generations (Wales) Act is for a “A prosperous Wales”, which seeks “An innovative, productive and low carbon society which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change); and which develops a skilled and well-educated population in an economy which generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through securing decent work[[301]](#footnote-302)”.

This goal is pertinent to helping small businesses in rural areas develop skills, as well as employment to contribute to reducing inequality[[302]](#footnote-303). There needs to be an emphasis on balancing the short-term needs of an area with safeguarding the ability to also meet the long-term needs with a collaborative approach[[303]](#footnote-304).

Planning Policy Wales further states development decisions need to promote feasible rural retail and commercial centres as sustainable locations to live, work, shop, socialise and conduct businesses, these areas need to be sustained, and access to these centres should be improved by all modes of transport, with public transport being one of the key priorities [[304]](#footnote-305). It also supports that “Small-scale enterprises have a vital role to play in the rural economy and contribute to both local and national competitiveness and prosperity”.

Rural proofing is a government commitment, underpinned by the principles of social justice, sustainability, equality and fairness, and includes actions to improve the quality of life for those residing in the Welsh rural communities. For people that live in rural areas the transport networks can improve access to such opportunities in more traditionally hard to reach areas.

In response to the public consultation, St Dogmaels 20s Plenty for us campaign stated they consider the proposal will have a very positive impact on local high street businesses and businesses in the area using the road network for access or deliveries. However, no justification was provided as to why this would be the case.

The proposal for a national default speed limit of 20mph is expected to create slower streets which attract more walkers and cyclists, creating an increased footfall and dwell time. This creates a higher spend in local shops and high streets, including those in rural areas[[305]](#footnote-306). Living Streets and Just Economics’ reporting on ‘The Pedestrian Pound’ cites examples where walkable neighbourhoods have helped to attract and retain employees (pushing commercial desirability up) and are favoured by people looking to buy family homes (raising house prices). Whilst this is more applicable to urban areas, the same principles apply for rural areas.

*Conclusion*

It is likely that a business-as-usual approach would likely lead to road safety issues within rural areas to remain. It is assumed adopting a business-as-usual approach would mean car dependability in rural areas will remain high with limited active travel journeys being made, reducing the ability of future areas to cater to a new sustainable way of living. The continual decline in rural areas would further prevent people from accessing jobs, act as a barrier to business accessing markets and growing, and level of social isolation among individuals within rural communities would remain or be exacerbated.

The adoption of a 20mph default speed limit is likely to achieve significant road safety benefits within rural areas. In the longer term, within rural areas there is the expectation that the perception of road danger will also reduce, leading to more walking and cycling which will improve public health and replace some short car journeys, and so achieving further reductions in collisions and casualties. More walking and cycling is also likely to lead to greater social cohesion within rural areas which brings further societal and health benefits.

Located in a rural setting, the pilot study area of St Brides Major experienced a reduction in speed at all four sites, particularly at site 3 which is in close proximity to a school, demonstrating change of a default speed limit can also benefit young people living in rural areas, making their journey to school safer.

A positive impact is also expected to be experienced by rural businesses as the proposals create slower streets which attract more walkers and cyclists, creating an increased footfall and dwell time. The proposal is likely to create attractive rural streetscapes which would positively impact key tourist destinations by encouraging visitors to travel sustainably and create a pleasant environment, encouraging visitors and tourists to return.

However, residents in the Phase 1 pilot areas raised concerns which included in some cases the default speed limit not being needed, and that default speed limit should only be targeted in areas where the perceived risk is high. This is relevant to rural areas as they are typically sparsely populated with a small density of residential and retail premises. The potential for routes not needing to be subject to the proposed default speed limit was also an area highlighted by the CPT Cymru who stated local authorities should consider using the exception rule on key arterial routes that could be maintained at 30mph to ensure that the bus services remain appealing and do not increase journey times for passengers. This is pertinent for those on low incomes living in rural areas as they heavily rely on the buses to access employment, education, leisure and recreation. As such, local authorities should carefully consider which roads with rural areas should be exempt to mitigate harmful impacts on the rural population.

# G. 20mph consultation responses

The table below provides an overview of the responses received at the 20mph public consultation which ran between July 2021 until September 2021. Overall, the majority of responses were against the proposal, with the concerns being raised related to enforcement, costs, timescales and local authority resources.

| **Respondent** | **Key points raised** | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **In favour of the proposals** | **Impact on people** | **Impact on environment** | **Impact on businesses** | **Additional impacts/ point raised** | **Concerns raised about the change** |
| *General Public* | Out of 5,607 public responses, the majority of people are not in favour of the proposals. Whilst 46% considered a reduction in speed limit is needed, 51% stated there is no need and 3% either did not know or did not answer. | 74% of respondents were concerned and 52% were very concerned about children being involved in an accident.  59% stated the roads are not safe for people with impairments.  54% concerned that the roads are not safe for cyclists. | 64% of respondents were concerned about cars and other vehicles parking on pavements. | Views were split evenly on whether the impact would be positive or negative for local ‘high street’ businesses | Two in three respondents said the speed change would not change their behaviour in relation to walking, cycling or public transport. One in three said they would walk more and cycle or scooter more (and also drive more) if a 20mph speed limit were introduced. | Journey times could be longer  Congestion could increase  Drivers could become annoyed |
| *Caerphilly County Borough Council* | Strongly in favour | Proposed change will:  Improve physical and mental health  Allow people to socialise more  Positively impact older people, pregnant women and those with physical and sensory impairments |  | The impact on local high streets and local businesses will be neutral | The impact on road maintenance and the Welsh language will be neutral | Concern about how the speed change will be enforced and the measures used for driver compliance.  Journeys will be longer.  Driver annoyance  Drivers will ignore the speed change |
| *Mold Town Council* | In favour | The change will create a safer environment for pedestrians and children to play in  The change will have a positive impact on older people, pregnant women and those with physical and sensory impairments | The change will create a safer environment | The change will have a very positive impact on businesses on the local high street |  | Concerns raised about enforcement and drivers ignoring speed limits |
| *Monmouth Civic Society* | In favour | Considers cars and vehicles currently driving too fast generally, and especially near schools and areas with many pedestrians | The change will create a safe and pleasant walking environment  Considers the proposal will create a reduction in air and noise pollution | Expects a very positive impact on high street businesses | The proposed change will encourage cycling and use of public transport | Concern the proposed change in speed will be ignored  Journey times will increase  Considers the proposed speed change should be limited in areas and properly enforced as if the area is too large drivers would not comply with the speed change |
| *Wales Safer Communities Network* |  |  |  |  | Requests the messaging approach be consistent | Concern that the change in speed will result in anti-social behaviour towards those who are complying with the speed limit.  The change in speed leading to riskier manoeuvres when leaving a 20mph zone  States safe routes for those fleeing domestic abuse and forms of exploitation should not be disrupted by traffic flows |
| *Confederation of Passenger Transport Cymru* |  |  |  | CPT Cymru highlighted that the way in which the proposal is implemented will have a bearing on the levels of costs for bus operators; slower speeds may lead to increased costs in terms of fuel consumption and resourcing / fleet size. It may also make bus services less appealing, which may in turn lead to higher fares. | CPT Cymru stated that it is important that road safety concerns are seriously considered, and bus and coach operators have an important role to play in considering road safety  CPT Cymru encourage local authorities to balance the importance of safety concerns with overall journey times by considering key arterial routes that could be maintained at 30mph. | CPT Cymru consider it will be crucial to have a strong and effective enforcement policy to ensure it is adhered to. This is particularly aimed at private motorists. CPT Cymru consider that if enforcement is weak then private cars will continue to travel at 30mph and ignore the new rules |
| *St Dogmaels 20s Plenty for us - this includes feedback from residents from the St Dogmaels pilot settlement* | Strongly in favour | In response to the pilot people said they felt safer to walk around St Dogmaels  Children feel safer when walking to school and seeing friends  Considers the proposal will improve physical and mental health | Considers the proposal will reduce noise and pollution | Considers there will be a very positive impact on the local high streets and businesses in the area using the road network for access or deliveries | Considers the proposal will not have a negative impact on the Welsh language subject to all communication and signage being bilingual.  Suggests signage should be in the Welsh language first followed by English. | Concern the speed change will not be monitored or enforced in Welsh rural villages. |
| *Play Wales* | Strongly in favour | Considers the proposal will; Improve physical and mental health  Would encourage active travel to school  Allow children to play more safely  Will have the most wide-reaching and positive effect on supporting more children to play in their neighbourhood | Play Wales in very concerned about poor air quality and noise and considers the proposal will make streets more pleasant to live in |  | Children’s freedom to play outside in their local communities is hindered when roads are dominated by car drivers and traffic. |  |
| Public Health Wales | Strongly in favour | Considers the proposals will reduce wider public health harms associated with motor vehicles including community severance, mental health problems and physical inactivity. In addition to reducing disease and injury which will reduce the burden on the NHS | Considers the proposal will help reduce noise and air pollution | Considers there will be a very positive impact on the local high streets and businesses in the area using the road network for access or deliveries |  | States children walking to and from school are at the greatest risk of involvement in a road traffic crash when they are travelling along or with one or two others. States there is need to protect the entire journey to and from school as protecting one part of the journey would be insufficient to encourage behavioural change. |
| Sustrans | Strongly in favour | Considers the proposals will increase safety in the community which will increase walking and cycling  Considers road casualties would decrease as a result of the proposals  Considers the change would especially be beneficial for the most vulnerable people in society. |  | Considers the proposal will increase the number of people who walk and cycle which will increase trade and benefit businesses on the highstreets. |  |  |
| IAM RoadSmart | Considers the change in speed limit from 30mph to 20mph would not be an effective tool to reduce casualties and encourage active travel. Considered changing the speed limit without changing the look at feel of a road will have limited effect on driver behaviour and does nothing to provide a safe segregated space for pedestrians and cyclists | Considers more than a change in speed sign is needed to have a positive impact on people. Improvements could include pavement repairs and removing trip hazards. | Considers there needs to be shared space schemes to enhance the environment  Considers more research is required to conclusively link 20mph speed limits with better air quality. | Considers speed limits will not help the congestion caused by deliveries however considers a more structured road layout could assist and make a difference to the economy.  States bus companies in cities such as Edinburgh has shown that 20mph limits can impact negatively on timetabling and bus performance. | Considers roads that are used as rat runs need to be altered to make them less inviting to drivers using traffic calming measures.  The Welsh Government need to ensure that police forces have the resources they need to target those who will ignore the speed limit and cause injuries. | Concern that the widespread adoption of a speed limit which is ignored in the areas where it is currently implemented may put the trust in the overall system of speed limit setting in jeopardy. |
| Living Streets | Support for the scheme | Considers the proposal will help address parental concerns about speeding traffic on a child’s walk to school.  Considers the proposal will bring benefits for older people, people with a physical or sensory impairment and pregnant women  Considers the proposals will increase walking on streets and increase community cohesion | In response to the living streets survey it was found respondents considered there would be reduced fuel consumption which will reduce noise pollution | Considers the proposal will create a more walking friendly retail environment which will lead to an increased footfall and spend, benefitting businesses. | States in rural areas there is a lack of footways which in addition to high-speed traffic creates a hostile environment | Concern that the proposed speed limit would not be enforced properly. |
| Neath Port Talbot | In favour of the proposal | Considers the proposal will improve physical and mental health and well-being | Considers the proposal will support the Welsh Governments place making agenda | Considers the proposal will have a positive impact of the local economy |  | Concern about resources timescales and costs. States sufficient time and local personal would be required to complete a review of the exceptions map and that there may be a shortage of engineers to do so.  As many urban roads do not have streetlights, there is concern the council would have to revoke existing traffic regulatory orders and create new ones. This task would not be able to be done with the current resources and costs. Due to TROs being open to objection, this could delay the implementation of the proposed speed limit.  Concern enforcement of the new legislation will be insufficient which will cause backlash for the council.  Concern the proposal could have a negative impact of bus services. |
| Penarth Town Council | Overall support for the proposal | Considers high speed traffic affects children, older and vulnerable people and that the proposal would help alleviate the severity of traffic collisions | Considers more ambitious projects would have a greater impact on air quality such as the promotion of electric vehicle use and electric vehicle infrastructure | States consultation will businesses is needed to understand the impact | States the success of the speed limit will be dependent on the clarity and communication so the public understand where and why the roads have a changed speed limit. | Concern the proposal will not be enforced properly |
| Royal College of Paediatrics and Child Health | Supports the proposal | Considers the proposal will positively impact child health and help contribute to childhood obesity through the promotion of physical activity. | - | - | - | - |
| Royal College of Nursing | Strong support for the proposal | Considers the proposal will reduce the number of fatal injuries on the road  Considers the proposal will help to achieve all four parts of the quadruple aim set out in A Healthier Wales.  Considers the proposal will indirectly lead to higher value health and social care through a reduction in preventable illnesses | Considers the proposal will increase active travel and reduce pollution | - | - | - |
| The Welsh Local Government Association | Rationale behind the proposal recognised | Considers the proposal will contribute to the modal shift towards active travel which will improve physical and mental health and wellbeing |  | Considers the proposal will positively impact on the local economy | States information is needed for how the Welsh Government will inform local authorities of the level of financial resources that will be made available to them and whether the Welsh Government will fund the entire national programme  States it would be beneficial if local authorities could access the tools available to support enforcement. Suggests flexibility in the criteria to recognise the need for effective enforcement and allow installation of average speed cameras where there is evidence of poor compliance | Concern about resources, timescales, costs and enforcement.  States that local authorities may not have the resources and timescales to review the exceptions maps. Concerns are raised around a lack of road engineers, labour shortages material delays, material cost inflation and private sector suppliers shortening their tender periods.  As many urban roads do not have streetlights, there is concern the council would have to revoke existing traffic regulatory orders and create new ones. This task would not be able to be done with the current resources and costs. Due to TROs being open to objection, this could delay the implementation of the proposed speed limit. |
| Community Transport Association | In favour | Considers proposal will lead to increased road safety for road users not in cars and subsequently more active travel. Note that is will be particularly beneficial for children and older people living in built up areas. |  |  |  |  |

1. [Section 82(1)(a) of the Road Traffic Regulations Act 1984](https://www.legislation.gov.uk/ukpga/1984/27/section/82#:~:text=82%20What%20roads%20are%20restricted,E%2BW%2BS&text=(a)in%20England%20and%20Wales,more%20than%20200%20yards%20apart%3B&text=(b)that%20%5BF3the,restricted%20road%20for%20those%20purposes) defines a restricted road as a road which is provided with a system of street lighting furnished by means of lamps placed not more than 200 yards apart Road Traffic Regulation Act 1984. [↑](#footnote-ref-2)
2. [20mph task force group report](https://gov.wales/20mph-task-force-group-report) [↑](#footnote-ref-3)
3. [Recorded road accidents classified as Killed or Seriously injured (KSI) by area and year (gov.wales)](https://statswales.gov.wales/Catalogue/Transport/Roads/Road-Accidents/accidents/ksiroadaccidents-by-area-year) [↑](#footnote-ref-4)
4. [Recorded road accidents classified as Killed or Seriously injured (KSI) by area and year (gov.wales)](https://statswales.gov.wales/Catalogue/Transport/Roads/Road-Accidents/accidents/ksiroadaccidents-by-area-year) [↑](#footnote-ref-5)
5. [Police recorded road accidents, –2020 (https://gov.wales/sites/default/files/statistics-and-research/2021-06/police-recorded-road-accidents-2020-952.pdf)](https://gov.wales/sites/default/files/statistics-and-research/2019-09/police-recorded-road-accidents-2018-990.pdf?msclkid=c00f1934b40411ec911d81bf72f28f0b) [↑](#footnote-ref-6)
6. Welsh 20mph Task Force Group Final Report. 2020. Available online at: <https://gov.wales/sites/default/files/publications/2020-07/20mph-task-force-group-report.pdf> [↑](#footnote-ref-7)
7. Statistics for Wales. 2019. Police recorded road accidents 2018-Revised. ([gov.wales/sites/default/files/statistics-and-research/2019-09/police-recorded-road-accidents-2018-990.pdf](https://www.gov.wales/sites/default/files/statistics-and-research/2019-09/police-recorded-road-accidents-2018-990.pdf)) [↑](#footnote-ref-8)
8. <https://gov.wales/sites/default/files/publications/2021-06/response-to-the-recommendations-made-in-the-20-mph-task-force-group-report.pdf> [↑](#footnote-ref-9)
9. [MASTER Project, 1999. Managing speeds of traffic on European roads.](https://trimis.ec.europa.eu/project/managing-speed-traffic-european-roads) Transport Research, Fourth Framework Programme Road Transport. Luxembourg: Office for Official Publications of the European Communities. [↑](#footnote-ref-10)
10. [The Bristol Twenty Miles Per Hour Limit Evaluation (BRITE) Study](https://uwe-repository.worktribe.com/output/875541/the-bristol-twenty-miles-per-hour-limit-evaluation-brite-study) [↑](#footnote-ref-11)
11. [20splenty.org/bristol\_20mph\_analysis](https://www.20splenty.org/bristol_20mph_analysis#:~:text=The%20University%20of%20the%20West,serious%20and%20slight%20injuries%20avoided) [↑](#footnote-ref-12)
12. [Davis, A, 2018. The state of the evidence on 20mph speed limits with regards to road safety, active travel and air pollution impacts.](https://www.gov.wales/sites/default/files/publications/2019-08/the-state-of-the-evidence-on-20mph-speed-limits-with-regards-to-road-safety-active-travel-and-air-pollution-impacts-august-2018.pdf) [↑](#footnote-ref-13)
13. <https://gov.wales/wellbeing-wales-2021-html> [↑](#footnote-ref-14)
14. [Planning Policy Wales Edition 11.](https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf) [↑](#footnote-ref-15)
15. The Wales Transport Strategy 2021. [Llwybr Newydd: The Wales Transport Strategy 2021: full strategy (gov.wales)](https://gov.wales/sites/default/files/publications/2021-03/llwybr-newydd-wales-transport-strategy-2021-full-strategy_0.pdf) [↑](#footnote-ref-16)
16. [Technical Advice Note 18: Transport](tan18-transport.pdf%20(gov.wales)). [↑](#footnote-ref-17)
17. [The Clean Air Plan for Wales, Healthy Air, Healthy Wales, 2020.](https://gov.wales/sites/default/files/publications/2020-08/clean-air-plan-for-wales-healthy-air-healthy-wales.pdf) [↑](#footnote-ref-18)
18. [The Clean Air Plan for Wales Healthy Air, Healthy Wales, 2019.](consultation-a-clean-air-plan-for-wales.pdf%20(gov.wales)) [↑](#footnote-ref-19)
19. [Connected Communities – A strategy for tackling loneliness and social isolation and building stronger social connections. Welsh government, 2020](https://gov.wales/sites/default/files/publications/2020-02/connected-communities-strategy-document.pdf). [↑](#footnote-ref-20)
20. [Road safety framework for Wales (2013)](https://gov.wales/road-safety-framework-wales) [↑](#footnote-ref-21)
21. [Decade of Action for Road Safety 2021-2030](https://www.who.int/teams/social-determinants-of-health/safety-and-mobility/decade-of-action-for-road-safety-2021-2030) [↑](#footnote-ref-22)
22. [global-plan-for-road-safety.pdf (who.int)](https://cdn.who.int/media/docs/default-source/documents/health-topics/road-traffic-injuries/global-plan-for-road-safety.pdf?sfvrsn=65cf34c8_33&download=true) [↑](#footnote-ref-23)
23. <https://whiasu.publichealthnetwork.cymru/en/> [↑](#footnote-ref-24)
24. A privacy assessment, strategic environmental assessment, habitat regulations assessment and environmental impact assessment are not considered necessary and have been scoped out of this IIA. [↑](#footnote-ref-25)
25. <https://www.llyw.cymru/sites/default/files/publications/2021-03/atisn14824doc10.pdf> [↑](#footnote-ref-26)
26. “Welsh Government Regulatory Impact Assessment (RIA) – 20mph Speed Limit Policy” May 2022 [↑](#footnote-ref-27)
27. <https://www.legislation.gov.uk/ukpga/1984/27/contents> [↑](#footnote-ref-28)
28. It is noted that Section 81 (2) of the Act makes provision for a traffic authority to direct that other roads become restricted without the system of street lighting described above. [↑](#footnote-ref-29)
29. The Wales Transport Strategy, 2021. [Llwybr Newydd: The Wales Transport Strategy 2021: full strategy (gov.wales)](https://gov.wales/sites/default/files/publications/2021-03/llwybr-newydd-wales-transport-strategy-2021-full-strategy_0.pdf) [↑](#footnote-ref-30)
30. [Welsh 20mph Task Force Group Final Report. 2020](https://www.gov.wales/20mph-task-force-group-report). [↑](#footnote-ref-31)
31. <https://statswales.gov.wales/Catalogue/Transport/Roads/Road-Accidents> [↑](#footnote-ref-32)
32. [Climate Change Committee (theccc.org.uk)](https://www.theccc.org.uk/) [↑](#footnote-ref-33)
33. [Llwybr Newydd: The Wales Transport Strategy 2021: full strategy (gov.wales)](https://gov.wales/sites/default/files/publications/2021-03/llwybr-newydd-wales-transport-strategy-2021-full-strategy_0.pdf) [↑](#footnote-ref-34)
34. “[Efficient driving in electric and low emission vehicles” DfT / Energy Saving Trust](https://energysavingtrust.org.uk/sites/default/files/Efficient%20driving%20in%20electric%20and%20low%20emission%20vehicles.pdf) [↑](#footnote-ref-35)
35. [The Welsh 20mph Task Force Group Final Report, 2020](https://gov.wales/sites/default/files/publications/2020-07/20mph-task-force-group-report.pdf). [↑](#footnote-ref-36)
36. Taken from [Welsh 20mph Task Force Group – final Report (2020](https://gov.wales/sites/default/files/publications/2020-07/20mph-task-force-group-report.pdf)). [↑](#footnote-ref-37)
37. [20mph Research Study. 2018. Atkins.](https://gov.wales/sites/default/files/publications/2020-07/20mph-task-force-group-report.pdf) [↑](#footnote-ref-38)
38. [The Bristol Twenty Miles Per Hour Limit Evaluation (BRITE) Study](https://uwe-repository.worktribe.com/output/875541/the-bristol-twenty-miles-per-hour-limit-evaluation-brite-study) [↑](#footnote-ref-39)
39. [https://www.20splenty.org/bristol\_20mph\_analysis](https://www.20splenty.org/bristol_20mph_analysis#:~:text=The%20University%20of%20the%20West,serious%20and%20slight%20injuries%20avoided) [↑](#footnote-ref-40)
40. Davis, A. 2018. [The state of the evidence on 20mph speed limits with regards to road safety, active travel and air pollution impacts. A literature review of the evidence.](https://www.gov.wales/sites/default/files/publications/2019-08/the-state-of-the-evidence-on-20mph-speed-limits-with-regards-to-road-safety-active-travel-and-air-pollution-impacts-august-2018.pdf) [↑](#footnote-ref-41)
41. [traffic-orders-and-20mph-public-attitudes-survey.pdf (gov.wales)](https://gov.wales/sites/default/files/publications/2021-07/traffic-orders-and-20mph-public-attitudes-survey.pdf) [↑](#footnote-ref-42)
42. <https://roadsafetygb.org.uk/news/cardiff-scheme-to-help-embed-cycling-in-school-curriculum/> [↑](#footnote-ref-43)
43. [Asher L, Aresu M, Falaschetti E, Mindell J. Most older pedestrians are unable to cross the road in time: a cross-sectional study.](https://pubmed.ncbi.nlm.nih.gov/22695790/) Age Ageing. 2012 Sep;41(5):690-4. doi: 10.1093/ageing/afs076. Epub 2012 Jun 13. PMID: 22695790. [↑](#footnote-ref-44)
44. We note that the questionnaire did not provide any specific / broader definition for “walking”, e.g., inclusion of wheelchair or mobility scooter within the walking definition. [↑](#footnote-ref-45)
45. [20mph speed limit public consultation summary report 2022.pdf](https://www.gov.wales/sites/default/files/pdf-versions/2022/3/5/1646988872/proposal-reduce-speed-limit-20mph-residential-streets-summary-responses.pdf)  [↑](#footnote-ref-46)
46. “Welsh Government Regulatory Impact Assessment (RIA) – 20mph Speed Limit Policy”, Draft 1, 5th May 2022 [↑](#footnote-ref-47)
47. [ONS (2011) 2011 Census Data WD703EW – Method of travel to work](https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/2011censusdetailedcharacteristicsontraveltoworkandcarorvanavailabilityforlocalauthoritiesinenglandandwales)  [↑](#footnote-ref-48)
48. [Welsh 20mph Task Force Group Final Report. 2020](20mph-task-force-group-report.pdf). [↑](#footnote-ref-49)
49. [20mph Speed Limit Trial Assessment. 2010. Warrington Borough Council](warrington-executive-report.pdf%20(wordpress.com)). [↑](#footnote-ref-50)
50. [Casualties by Local Authority, vehicle type, gender, severity (gov.wales)](https://statswales.gov.wales/Catalogue/Transport/Roads/Road-Accidents/Casualties/numberofcasualties-by-gender-typeofvehicle-severity-date-policeforcearea) [↑](#footnote-ref-51)
51. [Sarah J Jones & Huw Brunt 2017, ‘Twenty miles per hour speed limits: a sustainable solution to public health problems in Wales’, Journal of Epidemiology and Community Health, vol. 71, no. 7, pp. 699](https://pubmed.ncbi.nlm.nih.gov/28341623/) [↑](#footnote-ref-52)
52. [Third Global Ministerial Conference on Road Safety: Achieving Global Goals 2030 Stockholm. 2020. Stockholm Declaration.](https://www.roadsafetysweden.com/contentassets/b37f0951c837443eb9661668d5be439e/stockholm-declaration-english.pdf)  [↑](#footnote-ref-53)
53. [Poulter, D., McKenna, F. 2007. Is speeding a “real” antisocial behaviour? A comparison with other antisocial; behaviours, Accident Analysis and Prevention, 39: pp. 384-389.](https://www.sciencedirect.com/science/article/abs/pii/S0001457506001503) [↑](#footnote-ref-54)
54. <https://gov.wales/sites/default/files/statistics-and-research/2020-12/motoring-offences-2019-570.pdf> [↑](#footnote-ref-55)
55. [General Assembly of United Nations](General%20Assembly%20of%20United%20Nations) [↑](#footnote-ref-56)
56. [National Travel Survey: Travel to School factsheet (publishing.service.gov.uk)](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/476635/travel-to-school.pdf) [↑](#footnote-ref-57)
57. <https://gov.wales/sites/default/files/publications/2019-06/low-carbon-delivery-plan_1.pdf> [↑](#footnote-ref-58)
58. [Insall, P. (2013), Active travel for health. Nutrition Bulletin, 38: 61-69.](https://doi.org/10.1111/nbu.12010)  [↑](#footnote-ref-59)
59. [Active travel: Trends, policy and funding - House of Commons Library (parliament.uk)](https://commonslibrary.parliament.uk/research-briefings/cbp-8615/#:~:text=Promoting%20active%20travel%20can%20result%20in%20reduced%20emissions,week%2C%20which%20are%20hugely%20important%20for%20maintaining%20health.) [↑](#footnote-ref-60)
60. <https://uwe-repository.worktribe.com/output/875541> [↑](#footnote-ref-61)
61. <https://archive2021.parliament.scot/S5_Rural/Research_evidence_20mph_bILL.pdf> [↑](#footnote-ref-62)
62. [Research evidence 20mph -2nd rev (parliament.scot)](https://archive2021.parliament.scot/S5_Rural/Research_evidence_20mph_bILL.pdf) [↑](#footnote-ref-63)
63. [BRITE Bristol 20mph limit evaluation report\_20July18update.pdf](file:///C:/Users/Heulwen.Hill/Downloads/BRITE%20Bristol%2020mph%20limit%20evaluation%20report_20July18update.pdf) [↑](#footnote-ref-64)
64. [Hughes, S. & Hagen-Zanker, A (2021). [Ahead of print] International Journal of Sustainable Transportation, What aspects of traffic intensity most influence cycling mode choice? A study of commuting in Surrey.](https://www.semanticscholar.org/paper/What-aspects-of-traffic-intensity-most-influence-A-Grudgings-Hughes/05faa32f5c6eeef83c1d515ddacd4bb0f0491bbb) [↑](#footnote-ref-65)
65. [Children’s Commissioner for Wales. 2019](A-Charter-for-Change-Protecting-Welsh-Children-from-the-Impact-of-Poverty.pdf%20(childcomwales.org.uk)). [↑](#footnote-ref-66)
66. [ROSPA. Pedestrian safety in areas of deprivation. 2021.](https://www.rospa.com/media/documents/road-safety/factsheets/Pedestrian-safety-in-areas-of-deprivation.pdf) [↑](#footnote-ref-67)
67. [ROSPA. Pedestrian safety in areas of deprivation. 2021.](https://www.rospa.com/media/documents/road-safety/factsheets/Pedestrian-safety-in-areas-of-deprivation.pdf) [↑](#footnote-ref-68)
68. [Davis, A. 2018. The state of the evidence on 20mph speed limits with regards to road safety, active travel and air pollution impacts. A literature review of the evidence.](https://www.gov.wales/sites/default/files/publications/2019-08/the-state-of-the-evidence-on-20mph-speed-limits-with-regards-to-road-safety-active-travel-and-air-pollution-impacts-august-2018.pdf) [↑](#footnote-ref-69)
69. [Freitas, E. et al 2012. Traffic noise abatement: How different pavements, vehicle speeds and traffic densities affect annoyance levels, Transportation Research Part D, 17(4) 321-326.](https://www.sciencedirect.com/science/article/abs/pii/S1361920912000144) [↑](#footnote-ref-70)
70. [Comouso, C., Pronello, C. 2016 study of relationships between traffic noise and annoyance for different urban site typologies, Transportation Research Part D, 44: 122-133.](https://www.researchgate.net/publication/297616805_A_study_of_relationships_between_traffic_noise_and_annoyance_for_different_urban_site_typologies) [↑](#footnote-ref-71)
71. <https://www.rtbf.be/article/bilan-zone-30-a-bruxelles-le-nombre-de-victimes-sur-les-routes-divise-par-deux-10904242?id=10904242> [↑](#footnote-ref-72)
72. [Rossi, I. et al 2021 Estimating the health benefits associated with a speed limit reduction to thirty kilometres per hour: A health impact assessment of noise and road traffic crashes for the Swiss city of Lausanne, Environment International, 145, 106126](https://www.sciencedirect.com/science/article/pii/S016041202032081X) [↑](#footnote-ref-73)
73. [How has lockdown changed our relationship with nature? - Office for National Statistics](https://www.ons.gov.uk/economy/environmentalaccounts/articles/howhaslockdownchangedourrelationshipwithnature/2021-04-26) [↑](#footnote-ref-74)
74. [Landis, B.W., Vattikuti, V.R., Ottenberg, R.M., McLeod, D.S. and Guttenplan, M., 2001. Modeling the roadside walking environment: pedestrian level of service. Transportation research record, 1773(1), pp.82-88.](https://trid.trb.org/view/715905) [↑](#footnote-ref-75)
75. [O’Brien, L., Williams, K. and Stewart, A. (2010), *Urban health and health inequalities and the role of urban forestry in Britain: A review*](https://www.forestresearch.gov.uk/publications/urban-health-and-health-inequalities-and-the-role-of-urban-forestry-in-britain-a-review/), The Research Agency of the Forest Commission. [↑](#footnote-ref-76)
76. [De Nazelle, A., Nieuwenhuijsen, M.J., Antó, J.M., Brauer, M., Briggs, D., Braun-Fahrlander, C., Cavill, N., Cooper, A.R., Desqueyroux, H., Fruin, S. and Hoek, G., 2011. Improving health through policies that promote active travel: a review of evidence to support integrated health impact assessment. *Environment international*, *37*(4), pp.766-777.](https://pubmed.ncbi.nlm.nih.gov/21419493/) [↑](#footnote-ref-77)
77. [Active Travel Act Guidance. 2021](https://gov.wales/active-travel-act-guidance). [↑](#footnote-ref-78)
78. [Cymraeg 2050: A million Welsh speakers. 2017](https://www.gov.wales/sites/default/files/publications/2019-03/cymraeg-2050-a-million-welsh-speakers-annual-report-2017-18.pdf). Welsh Government. [↑](#footnote-ref-79)
79. [Prosperity for All: the national strategy. 2017. Welsh Government](https://gov.wales/prosperity-all-national-strategy). [↑](#footnote-ref-80)
80. <https://gov.wales/prosperity-all-economic-action-plan> [↑](#footnote-ref-81)
81. <https://gov.wales/sites/default/files/publications/2022-01/active-travel-act-guidance.pdf> [↑](#footnote-ref-82)
82. [Jones, S. J., & Brunt, H. (2017). Twenty miles per hour speed limits: a sustainable solution to public health problems in Wales. J Epidemiology Community Health, 71(7), 699-706.](https://www.jstor.org/stable/44363835) [↑](#footnote-ref-83)
83. <https://www.gov.uk/government/publications/tag-data-book> [↑](#footnote-ref-84)
84. [Cairns J, Warrren J, Garthwaite K, et al. Go slow: an umbrella review of the effects of 20mph zones and limits on health and health inequalities. Journal of Public Health 2014;37:515-20.27](https://travelwest.info/essential-evidence/153-child-pedestrian-casualties-and-deprivation). [↑](#footnote-ref-85)
85. [Bristol City Council. Greater Bristol Cycling City: End of Project Report, 2011](https://betterbybike.info/app/uploads/2020/07/Cycling-City-end-of-project-report.pdf) . [↑](#footnote-ref-86)
86. [traffic-orders-and-20mph-public-attitudes-survey.pdf (gov.wales)](https://gov.wales/sites/default/files/publications/2021-07/traffic-orders-and-20mph-public-attitudes-survey.pdf) [↑](#footnote-ref-87)
87. <https://www.livingstreets.org.uk/media/3890/pedestrian-pound-2018.pdf> [↑](#footnote-ref-88)
88. Ibid. [↑](#footnote-ref-89)
89. <https://www.gov.uk/government/statistical-data-sets/nts03-modal-comparisons> [↑](#footnote-ref-90)
90. <https://www.gov.uk/government/statistical-data-sets/average-speed-delay-and-reliability-of-travel-times-cgn> [↑](#footnote-ref-91)
91. <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757307/20mph-headline-report.pdf> [↑](#footnote-ref-92)
92. [Daly, Andrew, et al. The Value of Small Time Savings for Non-Business Travel.” Journal of Transport Economics and Policy, vol. 48, no. 2, University of Bath, 2014, pp. 205–18](https://www.ingentaconnect.com/content/lse/jtep/2014/00000048/00000002/art00002?token=00591b022a98aab5ac0266d6546592f653b5a306d3f344b52684f7e41225f407b2d2c20675476783462502ac7) [↑](#footnote-ref-93)
93. [An illustrated guide to traffic calming. by Dr Carmen Hass-Klau (1990), via 20’s Plenty](https://www.20splenty.org/20mph_limits_save_time_and_improve_traffic_flow) [↑](#footnote-ref-94)
94. [20mph research study - process and impact evaluation: technical report (publishing.service.gov.uk)](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757302/20mph-technical-report.pdf) [↑](#footnote-ref-95)
95. [Justice Impact Test Guidance. 2018.](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/733337/justice-impact-test-guidance.pdf) Ministry of Justice. [↑](#footnote-ref-96)
96. <https://gov.wales/natural-resources-policy> [↑](#footnote-ref-97)
97. [Prosperity for All: A Low Carbon Wales](https://gov.wales/sites/default/files/publications/2019-11/prosperity-for-all-a-climate-conscious-wales_0.pdf#:~:text=In%20March%202019%20the%20Welsh%20Government%20published%20Prosperity,and%20policies%20linked%20to%20adaptation%20in%20more%20detail.). [↑](#footnote-ref-98)
98. [low-carbon-delivery-plan\_1.pdf (gov.wales)](https://gov.wales/sites/default/files/publications/2019-06/low-carbon-delivery-plan_1.pdf?msclkid=a2cd9173b4de11eca231cfa3f68bdb25) [↑](#footnote-ref-99)
99. Welsh Government (2020) [The Clean Air Plan for Wales, Healthy Air, Healthy Wales](https://gov.wales/sites/default/files/publications/2020-08/clean-air-plan-for-wales-healthy-air-healthy-wales.pdf). [↑](#footnote-ref-100)
100. [Future Wales: The national plan 2040](https://gov.wales/sites/default/files/publications/2021-02/future-wales-the-national-plan-2040.pdf) [↑](#footnote-ref-101)
101. ‘[Twenty miles per hour speed limits: a sustainable solution to public health problems in Wales’, Journal of Epidemiology and Community Health (1979-), vol. 71, no. 7, pp. 699](https://pubmed.ncbi.nlm.nih.gov/28341623/) [↑](#footnote-ref-102)
102. [Jones, S. Brunt, H. (2017) Twenty miles per hour speed limits: a sustainable solution to public health problems in Wales. *Journal of Epidemiology and Community Health,* 71: pp. 699-706](https://pubmed.ncbi.nlm.nih.gov/28341623/). [↑](#footnote-ref-103)
103. [Williams, D (2013); An evaluation of the estimated effects on vehicle emissions of a 20mph speed restriction in central London. Transport and Environment Analysis Group, Centre for Transport Studies, Imperial College London](https://www.bristol20mph.co.uk/wp-content/uploads/2016/06/speed-restriction-air-quality-report-2013-for-web.pdf). [↑](#footnote-ref-104)
104. [Twenty miles per hour speed limits: a sustainable solution to public health problems in Wales](https://pubmed.ncbi.nlm.nih.gov/28341623/) [↑](#footnote-ref-105)
105. [Welsh Government makes climate emergency declaration.](https://gov.wales/welsh-government-makes-climate-emergency-declaration) [↑](#footnote-ref-106)
106. [Future Trends, National Indicators and National Milestones: Consolidated plan for 2021](https://gov.wales/sites/default/files/pdf-versions/2021/5/2/1620738812/future-trends-national-indicators-and-national-milestones-consolidated-plan-for-2021.pdf). [↑](#footnote-ref-107)
107. [Prosperity for All: A Low Carbon Wales.](https://gov.wales/sites/default/files/publications/2019-06/low-carbon-delivery-plan_1.pdf) [↑](#footnote-ref-108)
108. Quimby, A and Castle J. [A review of simplified streetscape schemes. 2006.](https://content.tfl.gov.uk/review-of-simplified-streetscape-schemes.pdf) [↑](#footnote-ref-109)
109. [Greenhouse Gas inventories for England, Scotland, Wales & Northern Ireland.](https://naei.beis.gov.uk/reports/reports?section_id=4) [↑](#footnote-ref-110)
110. [Llwybr Newydd: The Wales Transport Strategy 2021](Llwybr%20Newydd:%20The%20Wales%20Transport%20Strategy%202021). [↑](#footnote-ref-111)
111. [National Transport Finance Plan 2018 Update.](https://gov.wales/national-transport-finance-plan-2018-update) [↑](#footnote-ref-112)
112. <https://www.futuregenerations.wales/about-us/future-generations-act/>. The ways in which the policy aligns with the other two Ways of Working (working long term and collaboration) are outlined within section 1 of this IIA. [↑](#footnote-ref-113)
113. [Programme for government 2021 to 2026: Well-being statement [HTML] | GOV.WALES](https://www.gov.wales/programme-for-government-2021-to-2026-well-being-statement-html) [↑](#footnote-ref-114)
114. Welsh 20mph Task Force Group Final Report. 2020 [↑](#footnote-ref-115)
115. Adams, J., White, M., Heywood, P. 2005. Time trends in socioeconomic inequalities in road traffic injuries to children, Northumberland and Tyne and Wear 1988–2003, Inj Prevention;11:125-126 doi:10.1136/ip.2004.007823. [↑](#footnote-ref-116)
116. <https://gov.wales/statistics-and-research?lang=en> [↑](#footnote-ref-117)
117. <http://lle.gov.wales/home> [↑](#footnote-ref-118)
118. <https://gov.wales/well-being-wales> [↑](#footnote-ref-119)
119. 20mph Research Study. 2018. Atkins. [20mph research study - process and impact evaluation: headline report (publishing.service.gov.uk)](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757307/20mph-headline-report.pdf) [↑](#footnote-ref-120)
120. [Welsh Health Impact Assessment Support Unit. Health Impact Assessment – A Practical Guide](https://whiasu.publichealthnetwork.cymru/files/1415/0710/5107/HIA_Tool_Kit_V2_WEB.pdf). [↑](#footnote-ref-121)
121. [Department of Health and Social Care. (2019) UK Chief Medical Officers’ Physical Activity Guidelines](https://www.gov.uk/government/publications/physical-activity-guidelines-uk-chief-medical-officers-report). [↑](#footnote-ref-122)
122. [Department of Health (2011), Start Active, Stay Active: A report on physical activity from the four home counties, Chief Medical Officers](https://www.gov.uk/government/publications/start-active-stay-active-a-report-on-physical-activity-from-the-four-home-countries-chief-medical-officers). [↑](#footnote-ref-123)
123. [Cunningham C, O' Sullivan R, Caserotti P, Tully MA. (2020). Consequences of physical inactivity in older adults: A systematic review of reviews and meta-analyses. Scand J Med Sci Sports. 30(5):816-827. doi: 10.1111/sms.13616. Feb 4. PMID: 32020713](https://pubmed.ncbi.nlm.nih.gov/32020713/). [↑](#footnote-ref-124)
124. [Kumar, B, Robinson, R and Till. S (2015), Physical activity and health in adolescence. Clinical Medicine. Vol 15 267-72](https://www.rcpjournals.org/content/clinmedicine/15/3/267). [↑](#footnote-ref-125)
125. [Posadzki, P., Pieper, D., Bajpai, R. *et al.* Exercise/physical activity and health outcomes: an overview of Cochrane systematic reviews. *BMC Public Health* **20,**1724 (2020).](https://doi.org/10.1186/s12889-020-09855-3) [↑](#footnote-ref-126)
126. [Ramakrishnan R., He JR., Ponsonby AL., Woodward M., Rahimi K., Blair SN., Dwyer T., (2021), Objectively measured physical activity and all-cause mortality: A systematic review and meta-analysis, Preventive Medicine,Volume 143,106356,ISSN 0091-7435](https://doi.org/10.1016/j.ypmed.2020.106356),. [↑](#footnote-ref-127)
127. [Zhang, Z. & Chen, W. (2018), A Systematic Review of the Relationship Between Physical Activity and Happiness. Journal of Happiness .pp 1-8](https://link.springer.com/article/10.1007/s10902-018-9976-0). [↑](#footnote-ref-128)
128. [2018 Physical Activity Guidelines Advisory Committee. 2018 Physical Activity Guidelines Advisory Committee Scientific Report. Washington, DC: U.S. Department of Health and Human Services, 2018](https://health.gov/paguidelines/second-edition/report/pdf/PAG_Advisory_Committee_Report.pdf) [↑](#footnote-ref-129)
129. [Kekäläinen, T. et al. (2019), Cross-Sectional and Longitudinal Associations between Leisure Time Physical Activity, Mental Well-Being and Subjective Health in Middle Adulthood, Applied Research Quality Life](https://link.springer.com/article/10.1007/s11482-019-09721-4). [↑](#footnote-ref-130)
130. [Gianfredi V, Blandi L, Cacitti S, Minelli M, Signorelli C, Amerio A, Odone A. (2020). Depression and Objectively Measured Physical Activity: A Systematic Review and Meta-Analysis. *International Journal of Environmental Research and Public Health*. 17(10):3738](https://doi.org/10.3390/ijerph17103738). [↑](#footnote-ref-131)
131. [Caldwell, L.L. (2005) Leisure and Health: Why is leisure therapeutic?](https://www.researchgate.net/publication/240240982_Leisure_and_health_Why_is_leisure_therapeutic) [↑](#footnote-ref-132)
132. [Smith, M., Hosking, J., Woodward, A. et al*.* (2017) Systematic Literature Review of Built Environment Effects on Physical Activity and Active Transport – An Update and New Findings on Health Equity. Int J Behav Nutr Phys Act 14,158](https://doi.org/10.1186/s12966-017-0613-9). [↑](#footnote-ref-133)
133. [Saunders, L., Green, J., Petticrew, M., Steinback, R. and Roberts, H. (2013), *What are the health benefits of active travel? A systematic review of trials and cohort studies,* PLoS ONE](https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0069912&type=printable). [↑](#footnote-ref-134)
134. [NHS, National Obesity Observatory (2011), Data sources: environmental influences on physical activity and die*t*](https://khub.net/c/document_library/get_file?uuid=68b8960e-4145-4ed2-b9f8-1ce767f1d2ff&groupId=31798783)*,*  [↑](#footnote-ref-135)
135. [Booth GL, Creatore MI, Luo J, et al. (2019) Neighbourhood Walkability and the Incidence of Diabetes: An Inverse Probability of Treatment Weighting Analysis. J Epidemiol Community Health](https://pubmed.ncbi.nlm.nih.gov/30696690/). [↑](#footnote-ref-136)
136. [Sarkar C, Webster C, Gallacher J. (2018) Neighbourhood Walkability and Incidence of Hypertension: Findings from the study of 429,334 UK Biobank participants. International Journal of Hygiene and Environmental Health. 21:3:458-468](https://www.sciencedirect.com/science/article/abs/pii/S1438463917305813). [↑](#footnote-ref-137)
137. [Mertens, L., van Dyck, D., Ghekiere, A., de Bourdeaudhuij, I., Deforche, B., Van de Weghe, N., van Cauwenberg, J. 2016. Which environmental factors most strongly influence a street’s appeal for bicycle transport among adults? A conjoint study using manipulated photographs, International Journal of Health Geographics, 15:31](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5007833/). [↑](#footnote-ref-138)
138. [Vernon, D. (2014), Road Safety and Public Health, Royal Society for the Prevention of Accidents (RoSPA).](https://www.rospa.com/rospaweb/docs/advice-services/road-safety/practitioners/rospa-road-safety-and-public-health.pdf) [↑](#footnote-ref-139)
139. [Department of Health and Social Care. (2019) UK Chief Medical Officers’ Physical Activity Guidelines](https://www.gov.uk/government/publications/physical-activity-guidelines-uk-chief-medical-officers-report). [↑](#footnote-ref-140)
140. [Department of Health. (2004) Choosing Health Summaries: Diet and Nutrition. Public Health White Paper](https://navigator.health.org.uk/theme/choosing-health-making-healthy-choices-easier-white-paper). [↑](#footnote-ref-141)
141. [Department of Health. (2004) Choosing Health Summaries: Diet and Nutrition. Public Health White Paper.](https://navigator.health.org.uk/theme/choosing-health-making-healthy-choices-easier-white-paper) [↑](#footnote-ref-142)
142. [Public Health England. (2020) Health Matters: Physical Activity – Prevention and Management of Long Term Conditions](https://www.gov.uk/government/publications/health-matters-physical-activity). [↑](#footnote-ref-143)
143. [Public Health England. (2016) Health Matters: Getting Every Adult Active Every Day](https://www.gov.uk/government/publications/health-matters-getting-every-adult-active-every-day). [↑](#footnote-ref-144)
144. [Ed Harding, International Longevity Centre UK. (2007) Towards Lifetime Neighbourhoods: Designing Sustainable Communities for All. Department for Communities and Local Government](http://www.cpa.org.uk/cpa/Towards_Lifetime%20_Neighbourhoods.pdf). [↑](#footnote-ref-145)
145. [World Health Organisation. (2003). Social Determinants of Health: The Solid Facts 2nd Edition](https://iris.who.int/handle/10665/326568). [↑](#footnote-ref-146)
146. [The World Bank. (1999) What is Social Capital? PovertyNet](https://infed.org/social-capital/#:~:text=The%20World%20Bank%3A%20%E2%80%98Social%20capital%20refers%20to%20the,that%20holds%20them%20together%E2%80%99%20%28The%20World%20Bank%201999%29.). [↑](#footnote-ref-147)
147. Department for Communities and Local Government. [(2008) Predictors of Community Cohesion: Multi-level Modelling of the 2005 Citizenship Survey](https://pure.manchester.ac.uk/ws/portalfiles/portal/32380782/FULL_TEXT.PDF). [↑](#footnote-ref-148)
148. Department for Communities and Local Government. [(2008) Predictors of Community Cohesion: Multi-level Modelling of the 2005 Citizenship Survey](https://pure.manchester.ac.uk/ws/portalfiles/portal/32380782/FULL_TEXT.PDF). [↑](#footnote-ref-149)
149. [Uphoff, E., Pickett, K., Cabieses, B., Small, N. and Wright, J. (2013) A Systematic Review of the Relationships Between Social Capital and Socioeconomic Inequalities in Health: A Contribution to Understanding the Psychosocial Pathway of Health Inequalities, International Journal for Equity in Health](https://pubmed.ncbi.nlm.nih.gov/23870068/). [↑](#footnote-ref-150)
150. [Cockerham, W. (2017) The Social Determinants of Chronic Disease. American Journal of Preventive Medicine. 52, S5-S12](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5328595/). [↑](#footnote-ref-151)
151. [Cockerham, W. (2017) The Social Determinants of Chronic Disease. *American Journal of* Preventative Medicine. 52, S5-S12](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5328595/) [↑](#footnote-ref-152)
152. [Ehsan, A., et al. (2019) Social Capital and Health: A Systematic Review of Systematic Reviews. SSM Population Health. DOI: 10.1016/j.ssmph.2019.100425](https://www.sciencedirect.com/science/article/pii/S2352827319301144) [↑](#footnote-ref-153)
153. [Jennings, V and Bamkole, O. (2019) The Relationship between Social Cohesion and Urban Green Space: An Avenue for Health Promotion. International Journal of Environmental Research and Public Health. 16(3), 452](https://www.mdpi.com/1660-4601/16/3/452). [↑](#footnote-ref-154)
154. [Ehsan, A., et al. (2019) Social Capital and Health: A Systematic Review of Systematic Reviews, SSM Population Health. DOI :10.1016/j.ssmph.2019.100425](https://www.sciencedirect.com/science/article/pii/S2352827319301144) [↑](#footnote-ref-155)
155. [McPherson, K. (2014) The Association Between Social Capital and Mental Health and Behavioural Problems in Children and Adolescents: An Integrative Systematic Review. BMC Psychology](https://bmcpsychology.biomedcentral.com/articles/10.1186/2050-7283-2-7). [↑](#footnote-ref-156)
156. [Wanless. D. (2003) Securing Good Health for the Whole Population. Population Health Trends. HM Treasury/Department of Health](https://navigator.health.org.uk/theme/securing-good-health-whole-population-report). [↑](#footnote-ref-157)
157. [World Health Organisation Topic Sheet. (2018) Ambient (outdoor) air quality and health](https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health). [↑](#footnote-ref-158)
158. [Public Health England 2018. Guidance: Health Matters: air pollution](https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution). [↑](#footnote-ref-159)
159. IOM Working for a Healthier Future. [Scotland’s Environment (2015) Air Quality, Health, Well-being and Behaviour](https://www.environment.gov.scot/media/1133/iom-seweb-aq-health-behaviour-review.pdf). [↑](#footnote-ref-160)
160. Public Health England [(2019), Review of interventions to improve outdoor air quality and public health.](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/795185/Review_of_interventions_to_improve_air_quality.pdf). [↑](#footnote-ref-161)
161. [Landrigan, P.J., et al. (2018), The Lancet Commission on pollution and health, The Lancet 391:462-512](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)32345-0/abstract). [↑](#footnote-ref-162)
162. Particulate Matter up to 10 micrometres in size. [↑](#footnote-ref-163)
163. UK Health Alliance on Climate Change. [(2018) Moving Beyond the Air Quality Crisis. Realising the Health Benefits of Acting on Air Pollution](http://www.ukhealthalliance.org/wp-content/uploads/2018/10/Moving-beyond-the-Air-Quality-Crisis-4WEB-29_10-2018-final-1.pdf). [↑](#footnote-ref-164)
164. Department of Health Committee of the Medical Effects of Air Pollutants. (1998) [Quantification of the Effects of Air Pollution on Health in the United Kingdom](https://uk-air.defra.gov.uk/assets/documents/reports/cat02/aeat-env-r-1162.pdf). [↑](#footnote-ref-165)
165. Public Health England. [(2019) Review of Interventions to Improve Outdoor Air Quality and Public Health](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/795185/Review_of_interventions_to_improve_air_quality.pdf). [↑](#footnote-ref-166)
166. [Meng, X., Zhang, Y., Zhao, Z., Duan, X., Xu, X. and Kan, H. (2012) Temperature Modifies the Acute Effect of Particulate Air Pollution on Mortality in Eight Chinese Cities. Science of The Total Environment. 435– 436, 215–221](https://www.sciencedirect.com/science/article/abs/pii/S0048969712009527). [↑](#footnote-ref-167)
167. Health Scotland, MRC Social and Public Health Sciences Unit and Institute of Occupational Medicine. (2007) [Health Impact Assessment of Transport Initiatives: A Guide. NHS Health Scotland](https://www.healthscotland.com/documents/2124.aspx). [↑](#footnote-ref-168)
168. Public Health England. [(2019) Review of Interventions to Improve Outdoor Air Quality and Public Health.](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/795185/Review_of_interventions_to_improve_air_quality.pdf) [↑](#footnote-ref-169)
169. [Searl A. (2004) A Review of the Acute and Long Term Impacts of Exposure to Nitrogen Dioxide in the United Kingdom. Institute of Occupational Medicine](https://www.researchgate.net/publication/266094135_A_review_of_the_acute_and_long_term_impacts_of_exposure_to_nitrogen_dioxide_in_the_United_Kingdom). [↑](#footnote-ref-170)
170. [Searl A. (2004) A Review of the Acute and Long Term Impacts of Exposure to Nitrogen Dioxide in the United Kingdom. Institute of Occupational Medicine](https://www.researchgate.net/publication/266094135_A_review_of_the_acute_and_long_term_impacts_of_exposure_to_nitrogen_dioxide_in_the_United_Kingdom). [↑](#footnote-ref-171)
171. [Public Health England. (2018) Estimation of Costs to the NHS and Social Care Due to the Health Impacts of Air Pollution.](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/708855/Estimation_of_costs_to_the_NHS_and_social_care_due_to_the_health_impacts_of_air_pollution_-_summary_report.pdf) [↑](#footnote-ref-172)
172. [The state of the evidence on 20mph speed limits with regards to road safety, active travel and air pollution impacts. 2018. Davis, A](https://gov.wales/sites/default/files/publications/2019-08/the-state-of-the-evidence-on-20mph-speed-limits-with-regards-to-road-safety-active-travel-and-air-pollution-impacts-august-2018.pdf). [↑](#footnote-ref-173)
173. [Department of Environment, Food and Rural Affairs, Netcen, Department for Communities and Local Government. (2006) National Statistics. Air Quality and Social Deprivation in the UK: an Environmental Inequalities Analysis - Final Report to Department of Environment, Food and Rural Affairs](https://uk-air.defra.gov.uk/assets/documents/reports/cat09/0701110944_AQinequalitiesFNL_AEAT_0506.pdf) AEAT/ENV/R/2170. [↑](#footnote-ref-174)
174. [Brook, R., King, K.(2017) Updated Analysis of Air Pollution Exposure in London. Aether](https://www.london.gov.uk/sites/default/files/aether_updated_london_air_pollution_exposure_final.pdf) [↑](#footnote-ref-175)
175. [Public Health England. (2019) Review of Interventions to Improve Outdoor Air Quality and Public Health.](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/795185/Review_of_interventions_to_improve_air_quality.pdf) [↑](#footnote-ref-176)
176. [Landrigan, P.J., et al. (2018) The Lancet Commission on Pollution and Health, Lancet 391:462-512](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)32345-0/abstract) [↑](#footnote-ref-177)
177. [Guo C, Hoek G, Chang LY, et al. (2019) Long-Term Exposure to Ambient Fine Particulate Matter (PM2.5) and Lung Function in Children, Adolescents, and Young Adults: A Longitudinal Cohort Study. Environ Health Perspect.](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6957275/) 127(12):127008. DOI:10.1289/EHP5220 [↑](#footnote-ref-178)
178. [Public Health England. (2019) Review of Interventions to Improve Outdoor Air quality and Public Health](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/795185/Review_of_interventions_to_improve_air_quality.pdf). [↑](#footnote-ref-179)
179. [Basner, M., Babisch, W., Davis, A., Brink, M., Clark, C., Janssen, S., & Stansfeld, S. (2014) Auditory and Non-Auditory Effects of Noise on Health. Lancet, 383(9925), 1325-1332](https://pubmed.ncbi.nlm.nih.gov/24183105/). [↑](#footnote-ref-180)
180. [European Environment Agency (2020). Environmental Noise in Europe 2020. Luxembourg.](https://www.eea.europa.eu/publications/environmental-noise-in-europe/) [↑](#footnote-ref-181)
181. [World Health Organization. (2009) Night Noise Guidelines for Europe](https://iris.who.int/handle/10665/326486). [↑](#footnote-ref-182)
182. [Guski, R., Schreckenberg, D., & Schuemer, R. (2017). WHO Environmental Noise Guidelines for the European Region: A Systematic Review on Environmental Noise and Annoyance. International Journal of Environmental Research and Public Health, *14*(12), 1539](https://www.mdpi.com/1660-4601/14/12/1539) [↑](#footnote-ref-183)
183. [van Kamp, I., Simon, S., Notley, H., Baliatas, C., & van Kempen, E. (2020) Evidence Relating to Environmental Noise Exposure and Annoyance, Sleep Disturbance, Cardio-Vascular and Metabolic Health Outcomes in the Context of IGCB (N): A Scoping Review of New Evidence. International Journal for Environmental Research and Public Health, 17, 3016.](https://www.mdpi.com/1660-4601/17/9/3016) [↑](#footnote-ref-184)
184. [World Health Organisation. (2018) The World Health Organization Guidelines for Environmental Noise Exposure for the European Region. Copenhagen: Denmark.](https://www.who.int/europe/publications/i/item/9789289053563) [↑](#footnote-ref-185)
185. [World Health Organisation. (2018) Environmental Noise Guidelines for the European Region.](http://www.euro.who.int/en/publications/abstracts/environmental-noise-guidelines-for-the-european-region-2018) [↑](#footnote-ref-186)
186. [The Welsh 20mph Task Force Group](https://www.gov.wales/20mph-task-force-group-report) [↑](#footnote-ref-187)
187. <https://www.rtbf.be/article/bilan-zone-30-a-bruxelles-le-nombre-de-victimes-sur-les-routes-divise-par-deux-10904242?id=10904242> [↑](#footnote-ref-188)
188. [Rossi, I. et al 2021 Estimating the health benefits associated with a speed limit reduction to thirty kilometres per hour: A health impact assessment of noise and road traffic crashes for the Swiss city of Lausanne, Environment International, 145, 106126](https://europepmc.org/article/MED/32971416) [↑](#footnote-ref-189)
189. [Clark, C., Crumpler, C., & Notley, A. H. (2020) Evidence for Environmental Noise Effects on Health for the United Kingdom Policy Context: A Systematic Review of the Effects of Environmental Noise on Mental Health, Well-being, Quality of Life, Cancer, Dementia, Birth, Reproductive Outcomes, and Cognition. International journal of environmental research and public health, 17(2), 393.](https://doi.org/10.3390/ijerph17020393) [↑](#footnote-ref-190)
190. [van Kamp, I. and Davies, H. (2013) Noise and Health in Vulnerable Groups: A Review. Noise and Health.](https://www.researchgate.net/publication/236923581_Noise_and_health_in_vulnerable_groups_A_review) [↑](#footnote-ref-191)
191. [European Environment Agency. (2020) Environmental Noise in Europe.](https://www.eea.europa.eu/publications/environmental-noise-in-europe) [↑](#footnote-ref-192)
192. [Dreger, S., Schüle, S. A., Hilz, L. K., & Bolte, G. (2019) Social Inequalities in Environmental Noise Exposure: A Review of Evidence in the WHO European Region. International Journal of Environmental Research and Public Health. 16(6), 1011.](https://doi.org/10.3390/ijerph16061011) [↑](#footnote-ref-193)
193. [Tonne C, Milà C, Fecht D, et al. (2018) Socioeconomic and Ethnic Inequalities in Exposure to Air and Noise Pollution in London. Environ Int.115:170‐179.](https://spiral.imperial.ac.uk/handle/10044/1/58419)  [↑](#footnote-ref-194)
194. [Keijezer, C et al. (2016), Long-term Green Space Exposure and Cognition Across the Life Course: A Systematic Review. Current Environmental Health Reports Vol 3(4): 468-477.](https://pubmed.ncbi.nlm.nih.gov/27730509/) [↑](#footnote-ref-195)
195. [McCormick, R. (2017) Does Access to Green Space Impact the Mental Well-being of Children: A Systematic Review. Vol 37 pages 3-7.](https://www.sciencedirect.com/science/article/abs/pii/S0882596317301859) [↑](#footnote-ref-196)
196. [O’Brien, L., Williams, K. and Stewart, A. (2010), Urban health and health inequalities and the role of urban forestry in Britain: A review, The Research Agency of the Forest Commission.](https://www.forestresearch.gov.uk/publications/urban-health-and-health-inequalities-and-the-role-of-urban-forestry-in-britain-a-review/) [↑](#footnote-ref-197)
197. [Maas, J., Verheij, R., Groenewegen, P., de Vries, S. and Spreeuwenberg, P. (2006), *Green space, urbanity and health: how strong is the relation?* Journal of epidemiology and community health.](https://jech.bmj.com/content/60/7/587) [↑](#footnote-ref-198)
198. [Uebel, K, Marselle, M, Dean, AJ, Rhodes, JR, Bonn, A. Urban green space soundscapes and their perceived restorativeness. *People Nat*. 2021; 3: 756– 769](https://doi.org/10.1002/pan3.10215).  [↑](#footnote-ref-199)
199. [StatsWales: Welsh Language](https://statswales.gov.wales/Catalogue/Welsh-Language) [↑](#footnote-ref-200)
200. [National Survey for Wales 2018-19: Percentage of adults (16+) who speak Welsh daily and can speak more than just a few words of Welsh](https://www.gov.wales/sites/default/files/statistics-and-research/2019-06/national-survey-for-wales-headline-results-april-2018-to-march-2019.pdf) [↑](#footnote-ref-201)
201. [The Wales Transport Strategy, 2021](Llwybr%20Newydd:The%20Wales%20Transport%20Strategy%202021:%20full%20strategy%20(gov.wales)). [↑](#footnote-ref-202)
202. [Safe speeds for central London- introducing 20mph speed limits consultation report. 2019. Transport for London.](https://consultations.tfl.gov.uk/streets/20/results/safespeedsforcentrallondonintroducing20mphspeedlimitsconsultationreport.pdf)  [↑](#footnote-ref-203)
203. [Speed, emissions & health: The impact of vehicle speed on emissions](http://content.tfl.gov.uk/speed-emissions-and-health.pdf)

     [↑](#footnote-ref-204)
204. [Victoria Winckler, Equality and Human Rights Commission (2009) – Equality issues in Wales: a research review](https://www.equalityhumanrights.com/sites/default/files/research-report-11-equality-issues-in-wales-research-review.pdf) [↑](#footnote-ref-205)
205. [Welsh Language Standards.2018](https://www.legislation.gov.uk/wsi/2018/441/schedule/1/made). [↑](#footnote-ref-206)
206. [Welsh Government. (2016). Environment (Wales) Act 2016](https://www.legislation.gov.uk/anaw/2016/3/contents/enacted). [↑](#footnote-ref-207)
207. [Nature recovery action plan.](https://gov.wales/sites/default/files/publications/2020-10/nature-recovery-action-plan-wales-2020-2021.pdf) [↑](#footnote-ref-208)
208. [Adrian Davis Associates, 2018. The state of evidence on 20mph speed limits with regards to road safety, active travel and air pollution impacts. A literature review of the evidence.](https://www.gov.wales/sites/default/files/publications/2019-08/the-state-of-the-evidence-on-20mph-speed-limits-with-regards-to-road-safety-active-travel-and-air-pollution-impacts-august-2018.pdf)  [↑](#footnote-ref-209)
209. [Witheridge, J. and Morris, N. J. (2016) ‘An analysis of the effect of public policy on community garden organisations in Edinburgh’, *Local Environment*, 21(2), pp. 202–218](https://www.research.ed.ac.uk/en/publications/an-analysis-of-the-effect-of-public-policy-on-community-garden-or) [↑](#footnote-ref-210)
210. In consideration of the General Duties contained within [section 149 of the Equality Act 2010](https://www.legislation.gov.uk/ukpga/2010/15/section/149). [↑](#footnote-ref-211)
211. [ONS (2019) Annual Population Survey](https://www.gov.wales/annual-population-survey-2019) [accessed from Nomis 27 August 2019] [↑](#footnote-ref-212)
212. <https://www.ons.gov.uk/releases/nationalpopulationprojections2016basedstatisticalbulletin> [↑](#footnote-ref-213)
213. 212 <https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Estimates/nationallevelpopulationestimates-by-year-age-ukcountry> [↑](#footnote-ref-214)
214. 213 <https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Components-of-Change/componentsofpopulationchange-by-timeperiod-component> [↑](#footnote-ref-215)
215. 214 <https://www.nomisweb.co.uk/query/construct/submit.asp?forward=yes&menuopt=201&subcomp>= [↑](#footnote-ref-216)
216. 215 [ONS (2011) Census Data KS206EW – Household language](https://www.nomisweb.co.uk/census/2011/ks206ew) [downloaded from Nomis 23 August 2019] [↑](#footnote-ref-217)
217. 216 <https://statswales.gov.wales/Catalogue/Equality-and-Diversity/Religion/religion-by-region>

     217 [StatsWales (2019) Disability by Age and Sex](https://statswales.gov.wales/Catalogue/Equality-and-Diversity/Disability/disabilitystatus-by-age-sex), [accessed 23 August 2019] [↑](#footnote-ref-218)
218. 218 [Social Care Wales (2018) Preventative support for adult carers in Wales: rapid review](https://socialcare.wales/cms-assets/documents/Preventative-support-for-adult-carers-in-Wales.pdf) [↑](#footnote-ref-219)
219. 219 [Carers Wales (2019) Number of carers juggling paid work and care across Wales increases to 220,000](https://www.carersuk.org/news/stress-of-juggling-work-and-unpaid-care-for-relatives-causes-thousands-of-unpaid-carers-to-leave-the-workplace-mae-straen-jyglo-gwaith-a-gofal-di-d%C3%A2l-i-berthnasau-yn-achosi-i-filoedd-o-ofalwyr-di-d%C3%A2l-adael-y-gweithle/) [↑](#footnote-ref-220)
220. 220 <https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/sexuality/datasets/sexualidentityuk> [↑](#footnote-ref-221)
221. 221 <https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Employment/Persons-Employed> [↑](#footnote-ref-222)
222. [↑](#footnote-ref-223)
223. 222 [Highest qualification level of working age adults by region and local authority](https://statswales.gov.wales/Catalogue/Education-and-Skills/Post-16-Education-and-Training/Data-For-Regions-of-Wales/highestqualificationlevelofworkingageadults-by-region-localauthority) [↑](#footnote-ref-224)
224. 223 [Average (median) gross weekly earnings by Welsh local areas and year (£) (gov.wales)](https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Earnings/medianweeklyearnings-by-welshlocalareas-year)

     224 [Equality and Human Rights Commission (2017) The Disability Pay Gap](Average%20(median)%20gross%20weekly%20earnings%20by%20Welsh%20local%20areas%20and%20year%20(£)%20(gov.wales)) [↑](#footnote-ref-225)
225. 225 [Corlett, A. (2017) Diverse Outcomes: Living Standards by Ethnicity](https://www.resolutionfoundation.org/publications/diverse-outcomes-living-standards-by-ethnicity/) [↑](#footnote-ref-226)
226. 226 [Economic inactivity rates by UK country/English region and quarter (seasonally adjusted)](https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Economic-Inactivity/economicinactivityrates-by-ukcountryenglishregion-quarter) [↑](#footnote-ref-227)
227. 227 [ONS (2011) 2011 Census Data - QS416EW - Car or van availability](https://www.nomisweb.co.uk/census/2011/qs416ew) [↑](#footnote-ref-228)
228. 228 [Welsh Government (2014) National Survey for Wales - Transport](https://www.gov.wales/sites/default/files/statistics-and-research/2019-05/national-survey-wales-headline-results-2013-14.pdf) [↑](#footnote-ref-229)
229. 229 [Welsh Government (2020) National Survey for Wales - Transport](https://www.gov.wales/sites/default/files/statistics-and-research/2020-07/national-survey-wales-headline-results-april-2019-march-2020-947.pdf) [↑](#footnote-ref-230)
230. 230 [Independent Transport Commission (2015) On the Move: Exploring attitudes to road and rail travel in Britain](http://www.theitc.org.uk/wp-content/uploads/2016/12/ITC-Road-and-Rail-Travel-Trends-England-December-2016.pdf) [↑](#footnote-ref-231)
231. 231 [DfT (2014) National Travel Survey, Disability and travel 2007-2014](https://assets.publishing.service.gov.uk/media/5a808a6fed915d74e33fb03c/disability-and-travel-factsheet.pdf) [↑](#footnote-ref-232)
232. 232 [DfT (2019) Vehicle Licensing Statistics: Annual 2018](https://assets.publishing.service.gov.uk/media/5cd2e967ed915d788966d2e0/vehicle-licensing-statistics-2018.pdf) [↑](#footnote-ref-233)
233. 233 [Is Britain Fairer? —The state of equality and human rights 2018 Equality and Human Rights Commission 2018](https://www.gov.uk/government/publications/is-britain-fairer-the-state-of-equality-and-human-rights-2018) [↑](#footnote-ref-234)
234. 234 [ONS (2011) 2011 Census Data WD703EW - Method of travel to work](https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/2011censusdetailedcharacteristicsontraveltoworkandcarorvanavailabilityforlocalauthoritiesinenglandandwales)  [↑](#footnote-ref-235)
235. 235 <https://statswales.gov.wales/Catalogue/Transport> [↑](#footnote-ref-236)
236. 236 [British Red Cross (2019) Barriers to belonging: An exploration of loneliness among people from Black, Asian and Minority Ethnic backgrounds](https://www.redcross.org.uk/about-us/what-we-do/we-speak-up-for-change/barriers-to-belonging). [↑](#footnote-ref-237)
237. 237 [20mph Speed Limit Trial Assessment. 2010. Warrington Borough Council](warrington-executive-report.pdf%20(wordpress.com)). [↑](#footnote-ref-238)
238. 238 [20mph-task-force-group-report.pdf](file:///C:/Users/Heulwen.Hill/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/VT1Y9V1D/20mph-task-force-group-report.pdf) [↑](#footnote-ref-239)
239. 239 <https://www.gov.wales/sites/default/files/publications/2017-10/road-safety-framework-for-wales.pdf> [↑](#footnote-ref-240)
240. 240 [Tackling loneliness and social isolation: the role of commissioners | SCIE](https://www.scie.org.uk/prevention/connecting/loneliness-social-isolation/) [↑](#footnote-ref-241)
241. 241 [Jonine Jancey , Lisa Cooper , Peter Howat , Lynn Meuleners , David Sleet & Grant Baldwin (2013) Pedestrian and Motorized Mobility Scooter Safety of Older People, Traffic Injury Prevention, 14:6, 647-653, DOI: 10.1080/15389588.2012.749465](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6497387/) [↑](#footnote-ref-242)
242. 242 [warrington-executive-report.pdf (wordpress.com)](https://20mphzonesnot20mphlimits.files.wordpress.com/2014/06/warrington-executive-report.pdf) [↑](#footnote-ref-243)
243. 243 [Memorandum by Transport 2000. The nature and effects of illegal and inappropriate road traffic speed in the UK](https://publications.parliament.uk/pa/cm200102/cmselect/cmtlgr/557/557ap10.htm) [↑](#footnote-ref-244)
244. 244 [Casualties by Local Authority, vehicle type, gender, severity. StatsWales](https://statswales.gov.wales/Catalogue/Transport/Roads/Road-Accidents/Casualties/numberofcasualties-by-gender-typeofvehicle-severity-date-policeforcearea). [↑](#footnote-ref-245)
245. [Abdalla, I., Barker, D., Raeside, R. 1997. Road accident characteristics and socio-economic deprivation. Traffic Engineering and Control, December](https://trid.trb.org/view/477291), 672-676 [↑](#footnote-ref-246)
246. 246 [Memorandum by Transport 2000. The nature and effects of illegal and inappropriate road traffic speed in the UK](https://publications.parliament.uk/pa/cm200102/cmselect/cmtlgr/557/557ap10.htm) [↑](#footnote-ref-247)
247. 247 [20mph-task-force-group-report.pdf](file:///C:/Users/Heulwen.Hill/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/VT1Y9V1D/20mph-task-force-group-report.pdf) [↑](#footnote-ref-248)
248. 248 [Casualties by Local Authority, vehicle type, gender, severity (gov.wales)](https://statswales.gov.wales/Catalogue/Transport/Roads/Road-Accidents/Casualties/numberofcasualties-by-gender-typeofvehicle-severity-date-policeforcearea) [↑](#footnote-ref-249)
249. 249 [Abdalla, I., Barker, D., Raeside, R. 1997. Road accident characteristics and socio-economic deprivation. Traffic Engineering and Control, December, 672-676](https://trid.trb.org/view/477291) [↑](#footnote-ref-250)
250. 250 See: <https://www.un.org/en/about-us/universal-declaration-of-human-rights> [↑](#footnote-ref-251)
251. [20mph-task-force-group-report.pdf](file:///C:/Users/Heulwen.Hill/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/VT1Y9V1D/20mph-task-force-group-report.pdf) [↑](#footnote-ref-252)
252. [Abdalla, I., Barker, D., Raeside, R. 1997. Road accident characteristics and socio-economic deprivation. Traffic Engineering and Control, December, 672-676](https://trid.trb.org/view/477291) [↑](#footnote-ref-253)
253. [Cleland LC, McComb L, Kee F, et al. Effects of 20mph interventions on a range of public health outcomes: a meta-narrative evidence synthesis. Journal of Transport and Health 2019](https://www.research.ed.ac.uk/en/publications/effects-of-20-mph-interventions-on-a-range-of-public-health-outco). doi:10.1016/j.jth.2019.100633. [↑](#footnote-ref-254)
254. [Is Britain Fairer? The state of equality and human rights (2018)](https://www.gov.uk/government/publications/is-britain-fairer-the-state-of-equality-and-human-rights-2018) [↑](#footnote-ref-255)
255. 255 [Child road casualties (racfoundation.org)](https://www.racfoundation.org/media-centre/child-road-safety-press-release) [↑](#footnote-ref-256)
256. 256 [Child\_casualty\_mini\_report\_2014\_final.pdf (racfoundation.org)](https://www.racfoundation.org/wp-content/uploads/2017/11/Child_casualty_mini_report_2014_final.pdf) [↑](#footnote-ref-257)
257. 257 Welsh 20mph Task Force Group Final Report, 2020 [↑](#footnote-ref-258)
258. 258 [MASTER Project, 1999. Managing speeds of traffic on European roads. Transport Research, Fourth Framework Programme Road Transport. Luxembourg: Office for Official Publications of the European Communities.](https://portal.research.lu.se/en/publications/master-managing-speeds-of-traffic-on-european-rods-final-report) [↑](#footnote-ref-259)
259. 259 [International Transport Forum/OECD, 2018. Speed and Crash Risk. Paris: OECD](http://www.itf-oecd.org/sites/default/files/docs/speed-crash-risk.pdf) accessed 18th July 2018 [↑](#footnote-ref-260)
260. 260 <https://gov.wales/sites/default/files/consultations/2020-02/active-travel-guidance_1.pdf> [↑](#footnote-ref-261)
261. [Abdalla, I., Barker, D., Raeside, R. 1997. Road accident characteristics and socio-economic deprivation. Traffic Engineering and Control, December, 672-676](https://trid.trb.org/view/477291) [↑](#footnote-ref-262)
262. [Wales has the worst child poverty in the UK. Poverty and Social Exclusion.](Wales%20has%20the%20worst%20child%20poverty%20in%20the%20UK.%20Poverty%20and%20Social%20Exclusion.%20)  [↑](#footnote-ref-263)
263. [Abdalla, I., Barker, D., Raeside, R. 1997. Road accident characteristics and socio-economic deprivation. Traffic Engineering and Control, December, 672-676](Epidemiology%20and%20mapping%20of%20child%20road%20casualties%20(bmj.com)) [↑](#footnote-ref-264)
264. [Smith, A. Jones, S. Hanna, D. 2022. Epidemiology and mapping of child road casualties.](Epidemiology%20and%20mapping%20of%20child%20road%20casualties%20(bmj.com)) [↑](#footnote-ref-265)
265. [play deprivation impact consequences and potential of playwork.pdf (playwales.org.uk)](https://www.playwales.org.uk/login/uploaded/documents/INFORMATION%20SHEETS/play%20deprivation%20impact%20consequences%20and%20potential%20of%20playwork.pdf) [↑](#footnote-ref-266)
266. [Ginsburg, K. 2007. The importance of play in promoting healthy child development and maintaining strong parent-child bonds.](https://doi.org/10.1542/peds.2006-2697) [↑](#footnote-ref-267)
267. [play deprivation impact consequences and potential of playwork.pdf (playwales.org.uk)](https://www.playwales.org.uk/login/uploaded/documents/INFORMATION%20SHEETS/play%20deprivation%20impact%20consequences%20and%20potential%20of%20playwork.pdf) [↑](#footnote-ref-268)
268. [Microsoft Word - Playing Out Survey Report 2017.docx](https://playingout.net/wp-content/uploads/2017/07/Playing-Out-Survey-Report-2017.pdf) [↑](#footnote-ref-269)
269. [Mental Health in Wales Fundamental Facts 2016. Mental Health Foundation](https://www.mentalhealth.org.uk/explore-mental-health/publications/fundamental-facts-about-mental-health-2016). [↑](#footnote-ref-270)
270. [Increased support for children’s mental health following Covid-19 outbreak | GOV.WALES](https://gov.wales/increased-support-childrens-mental-health-following-covid-19-outbreak) [↑](#footnote-ref-271)
271. [Biddle, S. Physical activity and mental health in children and adolescents: a review of reviews.](https://pubmed.ncbi.nlm.nih.gov/21807669/) [↑](#footnote-ref-272)
272. [Five reasons going outdoors improves children’s mental health and wellbeing - Outdoor Classroom Day](https://outdoorclassroomday.com/2018/03/19/five-reasons-going-outdoors-improves-childrens-mental-health-and-wellbeing/#:~:text=Time%20spent%20playing%20outdoors%20is%20thought%20to%20help,sself-esteemand%20mental%20health%20and%20wellbeing%20in%20young%20people.?msclkid=40f44a66cfa411eca7cda07613d4b772) [↑](#footnote-ref-273)
273. [Health matters: air pollution. 2018. Public Health England](Health%20matters:%20air%20pollution%20-%20GOV.UK%20(www.gov.uk)). [↑](#footnote-ref-274)
274. [Health matters: air pollution. 2018. Public Health England](Health%20matters:%20air%20pollution%20-%20GOV.UK%20(www.gov.uk)). [↑](#footnote-ref-275)
275. [Encouraging child road safety awareness (morayclaims.co.uk)](https://morayclaims.co.uk/encouraging-child-road-safety-awareness/) [↑](#footnote-ref-276)
276. <https://www.roadsafetywales.org.uk> [↑](#footnote-ref-277)
277. [Education (roadsafetywales.org.uk)](https://www.roadsafetywales.org.uk/education/) [↑](#footnote-ref-278)
278. [20mph Taskforce Group Report](https://gov.wales/20mph-task-force-group-report) [↑](#footnote-ref-279)
279. [20mph Welsh Taskforce Group Report](file:///C:\Users\Heulwen.Hill\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\VT1Y9V1D\20mph-task-force-group-report.pdf) [↑](#footnote-ref-280)
280. [Memorandum by Transport 2000. The nature and effects of illegal and inappropriate road traffic speed in the UK](https://publications.parliament.uk/pa/cm200102/cmselect/cmtlgr/557/557ap10.htm) [↑](#footnote-ref-281)
281. [Play Wales | Chwarae Cymru](https://playwales.org.uk/eng/generalcomment?msclkid=fc6340c1b01111ec920b5646179a814d) [↑](#footnote-ref-282)
282. [Powell, J., Keech, D and Reed, M., 2018. What Works in Tackling Rural Poverty: An Evidence Review of Interventions to Improve Transport in Rural Areas. Countryside and Community Research Institute, University of Gloucestershire](https://www.wcpp.org.uk/wp-content/uploads/2018/06/An-evidence-review-of-interventions-to-improve-transport-in-rural-areas.pdf). [↑](#footnote-ref-283)
283. [Powell, J., Keech, D and Reed, M., 2018. What Works in Tackling Rural Poverty: An Evidence Review of Interventions to Improve Transport in Rural Areas. Countryside and Community Research Institute, University of Gloucestershire](https://www.wcpp.org.uk/wp-content/uploads/2018/06/An-evidence-review-of-interventions-to-improve-transport-in-rural-areas.pdf). [↑](#footnote-ref-284)
284. [Risk and safety perception on urban and rural roads: Effects of environmental features, driver age and risk sensitivity - PubMed (nih.gov)](https://pubmed.ncbi.nlm.nih.gov/28436735/#:~:text=Risk%20and%20safety%20perception%20on%20urban%20and%20rural,both%20environments.%20Age%20did%20not%20affect%20hazard%20ratings.) [↑](#footnote-ref-285)
285. [Seat Belts Advice factsheet June 2016 (rospa.com)](https://www.rospa.com/rospaweb/docs/advice-services/road-safety/drivers/rural-road-safety-factsheet.pdf) [↑](#footnote-ref-286)
286. [Seat Belts Advice factsheet June 2016 (rospa.com)](https://www.rospa.com/rospaweb/docs/advice-services/road-safety/drivers/rural-road-safety-factsheet.pdf) [↑](#footnote-ref-287)
287. [Seat Belts Advice factsheet June 2016 (rospa.com)](https://www.rospa.com/rospaweb/docs/advice-services/road-safety/drivers/rural-road-safety-factsheet.pdf) [↑](#footnote-ref-288)
288. [MASTER Project, 1999. Managing speeds of traffic on European roads. Transport Research, Fourth Framework Programme Road Transport. Luxembourg: Office for Official Publications of the European Communities.](https://trimis.ec.europa.eu/project/managing-speed-traffic-european-roads) [↑](#footnote-ref-289)
289. <https://gov.wales/sites/default/files/consultations/2020-02/active-travel-guidance_1.pdf> [↑](#footnote-ref-290)
290. [Rural-Health-and-Care-Services-in-Wales\_0.pdf (nhsconfed.org)](https://www.nhsconfed.org/sites/default/files/media/Rural-Health-and-Care-Services-in-Wales_0.pdf) [↑](#footnote-ref-291)
291. [The key priorities to tackle and prevent loneliness and social isolation in Wales final\_4.pdf (nhsconfed.org)](https://www.nhsconfed.org/sites/default/files/media/The%20key%20priorities%20to%20tackle%20and%20prevent%20loneliness%20and%20social%20isolation%20in%20Wales%20final_4.pdf) [↑](#footnote-ref-292)
292. [The key priorities to tackle and prevent loneliness and social isolation in Wales final\_4.pdf (nhsconfed.org)](https://www.nhsconfed.org/sites/default/files/media/The%20key%20priorities%20to%20tackle%20and%20prevent%20loneliness%20and%20social%20isolation%20in%20Wales%20final_4.pdf) [↑](#footnote-ref-293)
293. [The key priorities to tackle and prevent loneliness and social isolation in Wales final\_4.pdf (nhsconfed.org)](https://www.nhsconfed.org/sites/default/files/media/The%20key%20priorities%20to%20tackle%20and%20prevent%20loneliness%20and%20social%20isolation%20in%20Wales%20final_4.pdf) [↑](#footnote-ref-294)
294. [Welsh Government, 2021. Stats Wales: Economic activity rate by Welsh local area and year](https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Employment/Persons-Employed/economicactivityrate-by-welshlocalarea-year). [↑](#footnote-ref-295)
295. [Welsh Government, 2019. 2. Data and Definitions Report](https://gov.wales/sites/default/files/publications/2019-08/appendix-02-data-and-definitions-report_0.pdf). [↑](#footnote-ref-296)
296. [Welsh Government, 2021. Stats Wales: Economic inactivity rates (excluding students) by Welsh local area and year.](https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Economic-Inactivity/economicinactivityratesexcludingstudents-by-welshlocalarea-year) [↑](#footnote-ref-297)
297. [Welsh Government, 2019. 2. Data and Definitions Report.](https://gov.wales/sites/default/files/publications/2019-08/appendix-02-data-and-definitions-report_0.pdf) [↑](#footnote-ref-298)
298. [Welsh Government, 2021. Stats Wales: Economic inactivity rates (excluding students) by Welsh local area and year.](https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Economic-Inactivity/economicinactivityratesexcludingstudents-by-welshlocalarea-year) [↑](#footnote-ref-299)
299. [UCL, 2014. Transport and Poverty. A Review of Evidence.](https://www.ucl.ac.uk/transport/sites/transport/files/transport-poverty.pdf) [↑](#footnote-ref-300)
300. [Powell, J., Keech, D and Reed, M., 2018. What Works in Tackling Rural Poverty: An Evidence Review of Interventions to Improve Transport in Rural Areas](https://www.wcpp.org.uk/wp-content/uploads/2018/06/An-evidence-review-of-interventions-to-improve-transport-in-rural-areas.pdf). Countryside and Community Research Institute, University of Gloucestershire. [↑](#footnote-ref-301)
301. [Welsh Government, 2015. Well-being of Future Generations (Wales) Act 2015](https://futuregenerations.wales/wp-content/uploads/2017/02/150623-guide-to-the-fg-act-en.pdf). [↑](#footnote-ref-302)
302. [Welsh Government, 2015. Future Generations framework for projects](https://futuregenerations.wales/wp-content/uploads/2018/11/FGCW-Framework.pdf). [↑](#footnote-ref-303)
303. [Welsh Government, 2015. Well-being of Future Generations (Wales) Act 2015](https://futuregenerations.wales/wp-content/uploads/2017/02/150623-guide-to-the-fg-act-en.pdf). [↑](#footnote-ref-304)
304. [Welsh Government, 2021. Planning Policy Wales: Edition 11](https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf). [↑](#footnote-ref-305)
305. [Pedestrian Pond Initiative Living Streets](https://www.livingstreets.org.uk/media/3890/pedestrian-pound-2018.pdf) [↑](#footnote-ref-306)