



Road Safety and Public Health



March 2014

Road Safety and Public Health

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RoSPA would like to express thanks to the Department for Transport (DfT) for funding the project, to the members of the advisory group, and especially to the road safety and public health professionals who gave their time to be interviewed for the case studies and gave permission for their use. Thanks are also due to Phil Insall from Sustrans, and RoSPA's National Road Safety Committee for commenting on the report at draft stages.

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Recommendations

There are four main recommendations from this report:

Healthy transport is the wider issue that links road safety with public health

The way we travel is a major determinant of how healthy people are. Road safety activities can be integrated with wider public health work by considering it alongside healthy transport and efforts to increase physical activity. Joint Strategic Needs Assessments should include road safety issues. There are opportunities to integrate the work of public health and road safety teams by developing mechanisms, such as joint funding of interventions. Relationships and the trust between the two teams must build over time.

Identify shared agendas between public health and road safety teams

Often the underpinning causes of poor health and injury are the same and should be identified as part of collaborative working. Public health and road safety are linked by factors related to the roads such as the speed and volume of traffic, which can cause injuries and prevent opportunities for healthy activity outside of the home. Social status is a large predictor of health and risk of traffic injury.

Identify the co-benefits that public health and road safety activities have on each other

Co-benefits describe the benefits that an activity has beyond its primary aim. Where road safety and public health activities have wider impact, these are the co-benefits of that activity. To integrate road safety and public health, these co-benefits must be considered when planning and evaluating work. Many road safety activities can have a positive impact on other health issues. Sometimes road safety activities may also have an unintended negative impact on wider health.

Evidence can support joint working

Both public health and road safety teams have access to data and evidence. Sharing this can improve the effectiveness of actions and set evidence based objectives. Joint evaluations can identify whether activities are having an impact across a broad range of health issues. Greater use of already published guidance by organisations such as NICE and WHO can be used to identify effective actions.

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1. Introduction

There is a large potential for road safety and public health practitioners to work closely. The aim of this report is to assess the current level of integration of road safety and public health activities, highlight examples of good practice, and provide guidance for road safety officers and public health practitioners on how the work of both can be integrated. This is not meant to be prescriptive guidance, but to be a catalogue of ideas and concepts that can be used or adapted depending on the opportunities available in different local authorities.

The report also discusses how road safety activities can have an impact on wider health, as well as vice versa. It is difficult, if not impossible, to talk about partnership working with public health teams without talking about the wider impacts of road safety activities on other areas of health.

To make sure that the guidance was well founded, two research activities were conducted:

- Firstly, we identified case studies of partnership working between public health and road safety, or activities that would have an impact on both.
- Secondly, we reviewed a sample of Joint Strategic Needs Assessments. These are the higher level assessment of the health issues that need to be addressed in local populations. They highlight areas for action and present an opportunity to include road safety with other public health issues.

Further information on the methodology is provided in Appendix 2.

Why now?

This idea of partnership working between professionals from road safety and public health backgrounds is not new. Many public health professionals have had an interest in road safety and road safety partnerships have included representatives from public health backgrounds. However, several recent events have created a window of opportunity for more integrated working.

In April 2013 there were changes to the way that health and social care in England was organised. Some aspects of public health were brought back into local authorities. Similarly, road safety has also undergone changes with many departments being reorganised or integrated with sustainable travel teams.

What are the new opportunities?

There are two opportunities resulting from the move of public health into local authorities.

Firstly, the influence that a wide range of local authority activities can have on safe roads can be considered. Public health teams may work closely with other services, such as housing, planning, community safety, or leisure services so that the work of these areas is linked with health improvement. This can include considerations about safer roads.

Secondly, 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. However, the way that people travel is influenced by concerns about actual or perceived safety; effective intervention to reduce road danger can encourage more people to travel by these active, health-promoting modes. This report predominantly addresses this second opportunity.

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2. How safer roads link with other public health aims

Road safety as an activity has been inseparable from the aim of preventing injuries. This aim is an important public health issue in itself. Local authorities have a statutory duty under the Road Traffic Act 1988 to carry out road safety activity because of this aim and the success of road safety policy is usually measured against it.

Road safety activity can also improve health and prevent diseases in other ways. How road safety activities fit into the wider picture is, therefore, an important consideration.



Where road safety activities with the aim of preventing injuries have a positive impact on other areas of health, it can be referred to as a co-benefitⁱ. Identifying and understanding these co-benefits are a key consideration when working in partnership between road safety and public health. The co-benefits to road safety activities can be assessed at any stage and ideally can be considered early on during the planning of an activity, and measured during the evaluation.

During the research for this report several road safety officers talked about how they were considering these co-benefits, either to increase the opportunities for partnership working with public health or because they had taken on a wider brief around sustainable travel.

Conversely, it is essential to consider any potential unintended negative effect of activities on wider health. For instance, some cycling safety campaigns could increase the perception of danger and put people off cycling, preventing the health gains achievable when people switch some of their journeys from motorised transport to cycling or walking.

ⁱ See <http://www.travelwest.info/evidence> Essential Evidence on a Page No 89

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A broad range of opportunities to improve health are set out in the Public Health Outcomes Framework (<http://www.phoutcomes.info/>). This is made up of several indicators across four different domains that measure different aspects of health and set the strategic direction for public health activity. An overview of the Public Health Outcomes Framework is shown in box 1. They can be a useful tool for linking road safety with other public health goals.

<p>Outcome 1: Increased healthy life expectancy</p> <p>Outcome 2: Reduced differences in life expectancy and healthy life expectancy between communities.</p>			
<p>Domain 1:</p> <p>Improving the Wider Determinants of Health</p> <p>Objective: Improvements against wider factors which affect health and wellbeing and health inequalities</p>	<p>Domain 2:</p> <p>Health Improvement</p> <p>Objective: People are helped to live healthy lifestyles, make healthy choices and reduce health inequalities.</p>	<p>Domain 3:</p> <p>Health Protection</p> <p>Objective: The population's health is protected from major incidents and other threats, whilst reducing health inequalities.</p>	<p>Domain 4:</p> <p>Healthcare public health and preventing premature mortality.</p> <p>Objective: Reduced numbers of people living with preventable ill health and people dying prematurely, whilst reducing the gap between communities</p>

Box 1: an overview of the Public Health Outcomes Framework.

Some examples of how road safety and transport link with the Public Health Outcomes Framework (PHOF) are discussed in the rest of this chapter, with relevant PHOF indicators highlighted. The provision of transport provides access to a wide range of services and can therefore impact on other public health outcomes indicators, such as reducing the number of 16-18 year olds not in education, employment or training, increasing employment for people with long term health conditions, or increasing the take up of NHS health checks.

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2.1 Physical activity

Physical inactivity can cause a range of chronic diseases. There is unequivocal evidence from many reviews^{1,2,3} that have linked it with increased risk of coronary heart disease and stroke, as well as breast and colon cancers and diabetes. Physical activity also has an impact on mental health and has a protective function against depression, dementia and anxiety⁴. Likewise physical activity also reduces the risk of injuries from falls in old age⁵.

Physical activity is effective at reducing this wide burden of illness and results in fewer premature deaths. An average of 3 hours cycling per week reduces the risk of death from all causes by over one quarter⁶. Similar health benefits result from walking^{7,8}.

There are benefits from increased physical activity to almost all of the population rather than just those at high risk.

The current recommendation is that adults aged 19 and over should spend at least 150 minutes per week in moderately intensive physical activity, in bouts of ten minutes or longer, or 75 minutes per week of vigorous physical activity, or a combination of the two. The Health Survey for England in 2012 found that 67% of men and 55% of women aged 16 or over met these guidelines⁹. The percentage of people from both sexes meeting this guideline decreases with age.

Active travel is the easiest way for most people to incorporate physical activity into everyday life. This includes walking and cycling. Journeys by public transport can also include physical activity in this way at one or both ends, or between stages in a journey stages^{10,11}.

Walking and cycling can be deterred where there is a perception that they are unsafe. For instance, children may travel to school by car or adults may decide against commuting to work by bike. Road safety interventions can help to encourage physical activity by creating a safer physical road environment and reducing the level of danger posed to vulnerable road users – for example, by reducing motor vehicle traffic speeds and volumes.

How this links with the public health outcomes framework:

Domain 2:

- *2.6 Excess weight in 4-5 and 10-11 year olds*
- *2.12 Excess weight in adults*
- *2.13 Proportion of physically active and inactive adults*
- *2.17 Recorded diabetes*
- *2.23 Self-reported well-being*
- *2.24 Injuries due to falls in people aged 65 and over*

Domain 4

- *4.1 Infant mortality*
- *4.3 Mortality rate from causes considered preventable*
- *4.4 Under 75 mortality rate from cardiovascular diseases (including heart disease and stroke)*
- *4.5 Under 75 mortality rate from cancer*

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2.2 Injury

Road safety activities that reduce motor traffic speed and volume can prevent injuries as well as have a wider impact on health by encouraging active travel.

The World Health Organisation safe system approach to road safety sets out an approach to speed management¹². It takes into account that road users make errors but that the consequences of this can, and should, be limited. In a safe system the speed limit should be set so that crashes at or below this speed are unlikely to cause fatal injury, and it therefore depends on the safety of vehicles and who uses the road environment. The safe system approach has been adopted by Sweden (Vision Zero) and The Netherlands (Sustainable Safety).

Motor traffic volume is also a cause of injury. An increase of 1,000 vehicles a day on a road is associated with a 6% increase in pedestrian injuries, a 5% increase in cyclist injuries, and a 7% increase in vehicle occupant injuries¹³. Measures to reduce motorised vehicle numbers on the road – such as the London congestion charge or encouraging greater use of public transport alongside active travel – should therefore reduce traffic casualties.

How this links with the public health outcomes framework:

Domain 1:

- *1.10 Killed and seriously injured casualties on England's roads*

Domain 2:

- *2.7 Hospital admissions caused by unintentional and deliberate injuries in children and young people aged 0-14 and 15-24 years*

Domain 4:

- *4.1 Infant mortality*
- *4.3 Mortality rate from causes considered preventable*

2.3 Social contact

People who have no social contact are between two to four and a half times more times likely to die prematurely than those who have the most social contacts¹⁴. Social support networks are also important for maintaining good health. A recent review identified that wide social support networks reduces depression and problem behaviours and can encourage positive health behaviours such as improved diets and more physical activity¹⁵.

Motor vehicle traffic volume affects the ability of people to create and maintain social contact. A study in Bristol found that people who lived on streets with higher volumes of motorised traffic adapted to the level of traffic by going out less, and so had fewer friends and acquaintances on the street, than those who lived on streets with lower traffic volumes¹⁶.

Social contact and isolation can be a greater issue amongst the elderly. This can be the result of reduced mobility, especially where there is a lack of alternative forms of transport when an individual gives up driving. Infrastructure can limit independence and opportunities for social contact, and pedestrian crossings do not offer enough time for most older adults to cross the road¹⁷.

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Community severance is a well-established phenomenon in transport planning whereby the speed and volumes of motorised traffic on roads bisecting their neighbourhoods divide individuals and communities. The difficulty of crossing the road may diminish access to other health promoting facilities, such as parks, recreation facilities, shops and health services^{18,19}.

How this links with the public health outcomes framework:

Domain 1:

- *1.18 Social isolation*

Domain 2:

- *2.23 Self-reported well-being*

Domain 4:

- *4.3 Mortality rate from causes considered preventable*

2.4 Noise and air pollution

Transport is a source of air pollution that can have an impact on health, such as nitrogen oxides and particulate matter (often referred to as PM_{2.5} or PM₁₀ depending on the diameter of the particulate matterⁱⁱ). Particulate matter can act in combination with other causes of ill health to affect the risk of mortality. It was estimated that the concentration of PM_{2.5} in England in 2008 reduced life expectancies by six to seven months²⁰. Similarly, increases in the concentration of PM₁₀ by 5 µm/m³ (the EU limit is 40 µm/m³) increases the risk of coronary events such as heart attacks by 12%²¹.

Road noise can increase the risk of heart disease and sleep disturbance, as well as causing cognitive impairment in children and general annoyance. Every year across Western Europe it has been estimated that these cause the equivalent of between 1 and 1.6 million lost healthy life years²² (as well as early mortality, this measure includes years lived with disability).

How this links with the public health outcomes framework:

Domain 1:

- *1.14 The percentage of the population affected by noise*

Domain 3:

- *3.1 Fraction of mortality attributable to particulate air pollution*

Domain 4:

- *4.3 Mortality rate from causes considered preventable*
- *4.4 Under 75 mortality rate from cardiovascular diseases (including heart disease and stroke)*
- *4.7 Mortality from respiratory diseases*

ⁱⁱ PM_{2.5} is particulate matter with a diameter less than 2.5 micrometers. PM₁₀ has diameter less than 10 micrometers

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2.5 Health inequalities

A major cause of ill health is social inequality²³. There are large differences in health between people from the most affluent and most deprived areas. Reducing these health inequalities is a major public health concern²⁴. One of the two overarching aims of the Public Health Outcomes Framework is to reduce the differences in life expectancy and healthy life expectancy between communities. This underpins all of the specific indicators.

People living in more deprived areas often have less access to a car. This can result in social exclusion when it is harder to access education, work or healthcare.

Children from the most deprived backgrounds are five times more likely to be injured on the roads compared with children from the most affluent backgrounds²⁵. Other research making the same comparison, but using a different measure of social background, found that the pedestrian fatality rate per population was 20 times higher amongst children from the most deprived backgrounds than children from the least²⁶. In part, this is due to more walking or cycling, the built environment and the social environment in the more deprived areas.

Despite lower car ownership, deprived areas often have roads which carry large volumes of through traffic, which can lead to an increased risk of injury from road traffic collisions. There is a strong correlation between how deprived an area is and air pollution²⁷.



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3. Case Studies

Several case studies were collected to demonstrate ideas about how public health and road safety projects can link with each other and have a broad impact. They can be adapted for other areas where they can be built into a wider process that identifies the need for different interventions and evaluates their impact.

Lancashire Case Study: Healthy Streets

What is it?

Healthy Streets is based on an Asset-Based Community Development (ABCD) methodology. Using this approach, the focus of the project was on making the most of the assets each community already had – its people, facilities and local environment. In areas of high deprivation, these assets are built upon in order to create a safer and healthier community.

The 20mph sign only programme across Lancashire set out to harness the benefits of introducing these new slower speeds. They were seen as an asset to be utilised, where people were encouraged to make the most of what's local to them, to engage in walking and cycling activities and in doing so reclaim their streets. They were able to proactively influence improvements in their local environment, increase travel by foot and by bike and reduce the speed of traffic, growing people's confidence when out and about locally.

An important factor of the Healthy Streets approach was its community led focus, with the decision making being handed over to the community. It was influenced by Fair and Healthy Lancashire and the Marmot Review report, 'Fair Society, Healthy Lives' (2010), which recommended approaches to reduce health inequalities. It also connected to the Lancashire County Council's, 'Creating Civilised Streets' policy document.

The overall aim of Healthy Streets was to work alongside the 20mph speed limits to increase and promote safer walking and cycling opportunities around Lancashire communities. The work was tied together by the local community volunteers and partners. Action plans were created to demonstrate what each area wanted to achieve and what was needed to achieve it, and then assistance was provided to take them forward. Examples include:

- Training volunteers to lead cycle rides that encourage cycling as a sociable way to exercise
- Community made maps of cycling routes and walking trails
- Providing cycle training
- Walks to improve children's confidence with different types of road crossing
- Purchasing a community Speed Indicator Device (smiley face speed sign) with training provided to volunteers to use it
- Signage to local places, some designed by local children

How does this link road safety and public health?

Healthy Streets has several objectives that link road safety and health. Exercise through walking and cycling reduces illness and lowering traffic speed and volume prevents injury and creates road environments where people feel safer. Road conditions can prevent communities connecting and gaining the health benefits their local surroundings can offer. Children can be prevented from playing outside where parents' fear for their safety.

In one of the most deprived areas of Lancashire a new crossing is to be installed that will improve safe links to local amenities, encouraging more safe walking and cycling.

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Cambridgeshire Case Study: Willow Bridge

What is it?

Willow Bridge is a walking and cycling route that connects two communities either side of the River Great Ouse in Cambridgeshire. It is designed to allow disabled access and is lit so that it can be used in the dark. Both sides of the bridge are linked by paths to nearby residential areas.

How did it come about?

The Bridge was built as part of the UK-wide “Connect2” project which Sustrans won in a national public vote run by Big Lottery. This project created new bridges and crossings giving access by foot and bike across busy roads, railways and rivers, each crossing being linked by a network of onward routes to where people live, work and relax. The Willow Bridge and its local network were funded by a grant from Big Lottery in partnership with the county and district councils and Sustrans.

Ernulf Academy, the secondary school for the southern half of St Neots, is Willow Bridge’s first destination to the east of the river. That means pupils who live to the west of the river, in Eaton Socon, now have a safe and speedy way to get to and from the Academy, walking or cycling. Indeed, pupils and staff were involved in publicising Sustrans’ bid for lottery funding, one of them suggested “Willow Bridge” as its name, and with other pupils across the town they chose three local heroes to be represented in a “portrait bench” close to the bridge

How does it connect road safety and public health?

Willow Bridge demonstrates the benefits of connecting two geographically close settlements. In this instance, the two settlements were separated by a river, although communities can also be disconnected by busy main roads and railways.

The bridge has changed the way people travelled locally. It was estimated that just under one quarter of a million trips were made across the bridge in 2012, with a large proportion of these made by children.

One third of people using the bridge said that they could have used the car for their journey instead. Providing access in this way acts as a road safety intervention by reducing the amount of traffic on local roads. In the case of Willow Bridge, this provided an alternative to driving to school using a nearby trunk road, and reduced the amount of traffic around the school itself. By making walking or cycling a realistic option it acted as a public health intervention to increase physical activity.

This increased access between the two communities has benefits for local employers and retail centres, as well as for the two primary schools serving the communities, which were both on the same side of the river.

A survey of students at Ernulf Academy found that more students were now walking to school rather than getting a lift in a car. Many more also expressed that they would like to cycle in, but were worried about the security of bike parking. This concern was addressed by installing new bike racks at the school.

The bridge was seen by students as a nicer way to get to school. In their responses, students also talked about how the new journey was quicker and also safer due to the traffic free environment and fewer cars around the school.

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Birmingham Case Study: Women on Wheels

What is it?

Women on Wheels is a cycle training initiative to encourage women from black and minority ethnic (BME) backgrounds to take up cycling. It was started by a road safety officer in Birmingham City Council as a small pilot in 2012 and grew from there.

Accredited instructors provide free cycle training to the participants in Women on Wheels. The training was to Bikeability level 1 and 2 as well as balance and control for complete beginners. The training, which was offered to groups, or on a one-to-one basis, increased the cycle skills and safety of the participants.

How did it come about?

Prior to Women on Wheels, the road safety officer had already been running child pedestrian training in schools in deprived and BME communities. This meant that a high level of trust had already been established and the road safety officer was a recognised face.

As part of this work, the road safety officer had discussions about the limited opportunities for women from BME backgrounds to start cycling and several informal interviews were conducted to find out whether the women would join a cycling group. The interviews identified a strong interest in taking up cycling, but also that there were several barriers to doing so. These included:

- The perception that tight fitting clothing was needed to cycle.
- The lack of discreet areas to practise away from men and traffic.
- Low cycle ownership and lack of money to buy one.
- Lack of confidence to begin cycling on their own.

How does this link road safety and public health?

Cycling brings health benefits to the individuals involved and it was this health benefit from physical activity, rather than a specific interest in cycling, that initially interested many of the women in joining a cycling group. As the project went on, more women and groups became involved, including some local mental health groups.

As well as the health benefits from cycling, Women on Wheels demonstrates how a road safety project can have a wider impact on health, and address factors that underpin good health and wellbeing. Examples of this are:

- The cultural background of many of the women who took part in Women on Wheels had meant that opportunities to learn to cycle had been limited. One aim of Women on Wheels was to start to change that, and show how the women could be cycling role models for their families and be seen riding in the community. Some of the women talked about how they could go for cycle rides with their children following the training.
- Several of the women learnt new skills in cycling, and some of the women who were unemployed when they first joined Women on Wheels went on to become employed cycle instructors.
- A strong finding from the evaluation was that the women had increased their confidence to cycle. Women on Wheels also addressed worries that some of the women had about putting themselves forward for something new, and overcoming the barriers.
- Women on Wheels became a new social group for many of the people involved.

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Brighton & Hove Case Study: Safer Roads Strategy, and a safe system approach

What is it?

The cornerstone of the emerging Brighton & Hove City Council Safer Roads Strategy 2014-2020 is the Safe Systems approach to road safety management. It was first described by the World Health Organisation in 2004 and subsequently adopted by the United Nations and several national governments.

In a Safe System, the causal factors that lead to an injury collision are seen as interlinked. In preventing these collisions, the efforts of those who design and maintain the roads, those who manage the roads and those who use the roads are similarly linked.

The key concept in a Safe System strategy is that roads should be designed, managed and maintained to prevent fatal and serious injuries from occurring, acknowledging that road users are bound to make mistakes. Since the causal factors of collisions and injuries are interlinked, e.g. the likelihood of a collision becoming fatal is known to increase with speed, the City Council has placed its city-wide 20mph speed limit at the heart of its road safety strategy.

The Brighton & Hove Safer Roads Strategy therefore provides the Council with a whole new rationale for engineering safer roads for all road users, particularly its target casualty groups. This the City Council to start to look at the possibility of eliminating death and serious injury on its road network as a realistic proposition, whilst also creating shared road environments that encourage active and sustainable travel.

How did it come about?

The opportunity to renew the Council's road safety strategy was presented when several local strategic transportation policy and strategy documents such as the Local Transport Plan were due for renewal. The global acknowledgement of the benefits of a Safe Systems approach encouraged Brighton & Hove to look at how it was delivering its statutory duty for road safety, across all those areas of the Council's business that could influence road safety, rather than it being seen as a relatively small function within the transportation or highways department.

How does this link road safety with public health?

It was important for Brighton & Hove's new road safety strategy document to reflect what the authority as a whole was doing for road safety and the areas where greater collaboration could be achieved. One key area for closer working was with the authority's public health professionals who shared not only a remit for road casualty reduction and prevention, but several common objectives, such as healthy and sustainable travel and fitness objectives for school aged children. The authority's road safety team was already well engaged with these objectives and able to identify how they support the safe system concept.

The scoping work carried out Brighton & Hove also identified wider Council public service functions such as civil enforcement, fleet management, taxi licensing, public transport and education, which presents key opportunities for collaboration in order to achieve road safety objectives. The City Council proposes to encompass these disciplines in its journey towards accreditation to ISO:39001 - Road Traffic Safety Management Systems (2012).

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Bristol Case Study: Traffic Choices

What is it?

Traffic Choices is a website (<http://www.trafficchoices.co.uk>) that aims to give people in Bristol a source of up to date and accurate information about different local traffic measures that can improve road safety. The website gives a concise overview of how to address particular safety concerns on the highway and suggests interventions for particular issues, with a description of how effective each intervention is at addressing the safety concern.

As well as presenting this evidence to local people and elected members, it also aims to help road engineers by equipping members of the public with information before some of the discussions around what might be appropriate locally.

The website was constructed in 2013 after engaging Neighbourhood Partnership Forums to find out what information people would like to be more available. A literature search was then carried out to find the most robust evidence and this was added to the website. Studies with weaker research methods were not included. This was followed by consultation with local people.

How did it come about?

Several different factors supported the development of Traffic Choices:

1. Bristol City Council has a public health professional embedded in the transport department.
2. A problem was identified in that members of the public did not have access to robust evidence, which meant that they would need to spend long periods of time speaking to the local traffic engineers.
3. The project fitted within the theme of localism, and making sure that individuals and communities made decisions using the best available evidence.
4. A Knowledge Transfer Partnership was established with public health funding to create a dedicated post to produce the website. However, the funding was for a 44 week period, which limited the length of the project. The project has been extended for a year through further public health funding, having been judged as helping to improve the current decision-making process for local road safety schemes identified by local residents.

How does this link public health with road safety?

Structure

In some local authorities, public health professionals are embedded in different directorates. This was the case in Bristol since 2008, and stronger links between public health and transport professionals have been developed. These links led to mutual learning of each other's fields and meant that trust built over time. Professionals from other backgrounds can draw upon a public health skill set, and wider health issues can be considered in the work of that department.

Evidence

One of the main ideas behind the Traffic Choices website is that it makes the evidence about traffic engineering measures available to a wider audience. Although the structure and specialist knowledge of public health professionals varies between local authorities, all public health professionals should be able to contribute expertise in the use and interpretation of evidence. In this project, the information on the website was identified by a systematic search and appraisal of the published literature.

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Manchester Case Study: 20mph limits

What is it?

Many urban areas in England are introducing 20mph speed limits on large proportions of their road network. 20mph limits describe areas where there are no physical measures, such as speed humps, to reduce vehicle speeds, but drivers are alerted to the limit by speed limit repeater signs.

In areas such as Manchester, this is a new approach to setting speed limits. Previously, 20mph zones had been introduced with traffic calming measures, such as chicanes or speed humps, however, measures such as these are more expensive. 20mph limits can, therefore, cover a much larger area for the same cost.

Manchester is using a phased approach to introduce 20mph limits across the city. Currently, the project is in its first phase.

How did it come about?

There were several steps that supported the introduction of 20mph limits:

- Nationally, the Department for Transport published the Strategic Framework for Road Safety in May 2011, which stated plans to review its guidance on speed limits and give local authorities more flexibility to introduce 20mph limits. The revised guidance was subsequently published in 2013.
- Regionally, the Local Transport Plan (LTP3) had recommended the introduction of 20mph limits to encourage more active travel and community interaction.
- These were acted upon by Manchester City Council, which passed a resolution in a council meeting in February 2012 to carry out a feasibility study. This was followed by a second resolution in March 2012 to identify where to introduce the limits and to investigate funding mechanisms.
- The funding for the first phase of introduction was provided from the public health budget. This funding was identified before public health moved into the local authority. Funding for later phases will come from different sources, including Manchester city council's bid for a cycling cities ambition grant.

How does this link road safety and public health?

There are two main broad aims to the 20mph limits in Manchester that link road safety with public health:

1. To reduce traffic casualties
2. To encourage more active travel

Both of these aims also fit with broader transport policies within the city.

The first phase was targeted where it could have the greatest impact on road safety and reduce health inequalities. The public health team worked with the highways team to analyse the data on deprivation and identify the best area for phase one.

Alongside the 20mph signs around 10% of the budget has been put towards publicity campaigns to help support the introduction of 20mph limits and encourage active travel. The public were engaged early on in the process to understand their opinions about the proposed speed limits. Organisations, such as the police and fire and rescue service were also involved early on.

Road Safety and Public Health

Leicestershire Case Study: Travel Choice and Access Team

What is it?

The work of the travel choice and access team is set out by the Local Transport Plan. Several activities are financed through the Local Sustainable Transport Fund (LSTF), such as targeted travel advice, improved cycling and walking networks, more cycle parking and adult cycle training.

Some of these activities are run with involvement from public health. This involvement has several benefits:

Shared aims

Working closely with public health colleagues allowed an evidence led approach to be developed. Whilst both departments had experience of this, both were able to revisit and question what they were trying to achieve with different activities.

Linking between schemes

By having shared aims, links were made. For example, public health staff helped to organise and fund referrals onto the adult cycle training courses that were made by local GPs.

How did it come about?

There had been very little dialogue between public health and the highways department, despite similar aims and, in some circumstances, similar activities. There had been some interaction, for instance, when the highways authority was preparing the Local Transport Plan 3. This interaction was typically to consult public health rather than any greater involvement.

A key turning point was when a commissioning panel was set up in the local authority to look at sport and physical activity. This was established because of the need to reduce any duplication of activity. The commissioning panel contained both public health and the travel choice and access team and established dialogue between the two on a common issue.

LTP 3 changed to focus the travel choice and access team towards getting the most use out of the already existing transport networks. This aligned with the public health objective of encouraging active travel better than previous versions of the LTP.

How does this link road safety and public health?

Public Health in Leicestershire is a separate directorate, and so mechanisms for joint working include:

- Highways are represented on the Health and Wellbeing Board through a working group, through which they have an open invitation to attend other working groups when relevant.
- Both departments put funding towards each other's projects. For instance, the public health department funded extra work that linked with the Olympic Legacy grant locally, and the highways department funded cycling equipment and training to support obesity prevention programmes.
- Members of the public health and travel choice and access teams are represented on the working groups of the other department. This helps to develop a wider understanding of each other's work and quickly identify opportunities for joint working.
- There is a good flow of information between departments. The delegation of responsibilities in the travel choice and access team has helped this, as different officers work with public health depending on the topic or geographical area.

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4. Road Safety in Joint Strategic Needs Assessments (JSNAs)

As well as understanding how road safety and public health activities fit together, this project also investigated how road safety could fit into the processes used within public health to establish their priorities. This included how road safety is incorporated into Joint Strategic Needs Assessments.

4.1 What are JSNAs?

A Joint Strategic Needs Assessment is written to improve the health of people in the local area. It does this by assessing the current health status of the whole population and local factors influencing health and wellbeing. Local travel is a determinant of health, and so many factors related to this can be included in the JSNA, for example, major local roads with high levels of high speed traffic acting as a barrier to people choosing healthy, active travel.

The JSNA addresses whether health and social care or other local services are meeting these identified health needs, or could be changed to address any unmet needs. This includes services provided by the local authority, local Clinical Commissioning Groups (CCGs), or NHS England. This can include road safety services.

The Local Authority and local CCGs have equal and joint duties to prepare the Joint Strategic Needs Assessment, which is one of three main functions of the local Health and Wellbeing Board. The statutory duty for top tier local authorities (county councils and unitary authorities) to establish a Health and Wellbeing Board is contained in the Health and Social Care Act 2012²⁸. Membership of the board is determined locally, although it must include an elected member from the local authority, representatives from the CCG, the Local Authority directors of adult social services, children's services, and public health, as well as a representative from the local Healthwatch organisation.

The Joint Strategic Needs Assessment is then the basis for the Joint Health and Wellbeing Strategy. The strategy identifies a smaller number of local priorities and sets out what the Board wants to achieve. This is how a JSNA influences how money can be best spent to improve people's health.

These elements form a structured approach to assessing local needs and influencing how funding is best used. The results of previous activity influence people's health and inform updates and additions to the JSNA.

There is considerable flexibility in how to prepare a JSNA and what topics should be included. In part, this also reflects the very different priorities across local authorities in England. The number of topics that could be covered is also flexible although a statutory guidance document explains the duties and powers relating to JSNA²⁹.

Another of the three main functions of Health and Wellbeing Boards is to promote integration between services. This includes services that have an impact on health, and the statutory guidance gives integration between transport and health and social care as an example.

Health and Wellbeing Boards can promote integration in several ways, such as identifying joint health and transport funding of road safety schemes that have predictable benefits for other areas of health, or identifying how the priorities from the JSNA could be met through joint working.

Therefore, the priorities identified in the JSNA can influence other services where there is integration between them. These functions of Health and Wellbeing Boards provide opportunities for integrated working between public health and road safety – either on its own or as part of transport services in general.

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4.2 A review of JSNAs

The first step in this process is to prepare a Joint Strategic Needs Assessment, which can provide the foundation for identifying what local integration is needed between transport and public health and the unmet needs for road safety activities. RoSPA conducted a review of JSNAs to understand the extent that this was actually occurring and the opportunities to include a road safety section if it was not.



4.2.1 Description of the JSNAs reviewed

Most of the JSNAs reviewed had been written recently. Twelve were dated 2013, and seventeen were dated 2012. Three of the JSNAs had various publication dates, as they were a collection of needs assessments for different issues that were published at different times.

The JSNAs were also from different areas. Fifteen were from urban unitary authority areas, sixteen from rural areas and nine London Boroughs.

The structure of the JSNAs was also categorised at this point, as the structure could affect whether road safety was included or not. There was a range of approaches with no two being identical, but three common structures emerged.

The most common structure was around different stages in people's lives (often called the Lifecourse approach in public health), starting with childhood and through into older age. Many of the JSNAs had adopted six policy objectives from 'Fair Society Healthy Lives' (The Marmot Review) as headings, and these were included in this section given that they deal with stages in people's lives to some extent.

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Twelve JSNAs were structured around different health issues, such as different forms of cancer or diabetes. Finally, five were structured around wider determinants of health, with headings that could be described as ‘the causes of causes’ of ill health. The others could not be categorised either because they were very focussed or large enough to include several of the above structures.

4.2.2 The inclusion of road safety

Exactly half of the JSNAs had a road safety section. This included JSNAs where road safety had its own heading or subheading or where there was more than one paragraph about road safety as part of a larger section.

The lack of a road safety section does not imply there were no references to road safety. Traffic injury was occasionally mentioned in other sections; for instance, a chapter on alcohol might mention drink driving. In one JSNA without a road safety section, there were several references to a local commitment to introduce widespread 20mph limits.

Similarly, some road sections were brief, with the shortest being six lines long.

There was a great variation in the chapters in which road safety sections appeared. The most common approach was to include road safety under child health, accounting for one quarter of all the road safety sections. Transport was also a common heading, with four including road safety as a section here. Finally, there were three instances of road safety being part of an all injuries section. There was no obvious way of categorising the other chapter headings, but they covered topics such as outdoor environment, community safety, health improvement and road safety as its own chapter.

The overall structure of the JSNA did not increase or decrease the likelihood of a road safety section being included.

Although the links between safer roads and wider public health is shown in the case studies in chapter 3, in the JSNAs, road safety was primarily discussed in terms of traffic injury. This is the focus of the rest of the review.

4.2.3 Data on the number and causes of traffic injuries

The statutory guidance on JSNAs states that quantitative and qualitative evidence should be used when assessing health needs. Road safety sections use quantitative evidence by including local road casualty data.

Nineteen of the road safety sections made reference to local data in the text of the JSNA, with STATS 19 data being used almost exclusively. In order to gauge local performance, comparisons were usually made. Comparisons were made about local performance over time in fourteen of the sections, and comparisons against other areas in eleven.

Eleven of the JSNAs presented the data in more detail using graphs or tables. Three of these included more than 5 tables to show the circumstances around local collisions and to help with the analysis presented. Four JSNAs presented one table.

All of these eleven JSNAs contained some detail of the trends in the number of injuries over time. Five JSNAs also used rates of the number of injuries per population.

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Two JSNAs included a map or table on the geographic variation of admissions from injuries within the local authority area. These were from neighbouring local authorities that had used very similar structures for their JSNA. Both used Hospital Episode Statistics (HES) data to show the wards with the highest number of people admitted to hospital with an injury, compared to the Index of Multiple Deprivation. Another JSNA used a map to show where the recorded injuries in STATS19 had occurred.

In explaining the causes of traffic injury, sixteen JSNAs described risk factors, although none presented data on how common they were locally. Again, there was much variation in what was mentioned, but age and experience were the most common risk factors, being mentioned in nine JSNAs, and deprivation or social inequality were the next most common, being mentioned in six.

Speed was mentioned five times, either the risk from the high speed of individual drivers or the risk from all traffic due to higher speed limits. The road environment was mentioned as a risk factor four times.

Other major risk factors, such as traffic volume (mentioned once) were rarely mentioned. None of the JSNAs mentioned drink driving in the road safety section.

4.2.4 Interventions

After identifying the number and causes of injury, many JSNAs discuss what road safety activity is currently happening to address them. This is important to understand whether current road safety activity is meeting those needs. This also provides the starting point for any further activity or suggested change.

Fourteen of the road safety sections mentioned current road safety activity. The most commonly mentioned intervention was education, training and publicity for different road users – this was mentioned in eight of the JSNAs. In total, seven JSNAs mentioned different interventions to reduce traffic speed, with references to traffic calming, widespread 20mph limits, and speed cameras.

4.2.5 Guidance used and links to other documents

The analysis also investigated which other documents or strategies are referenced. Drawing information from other documents can help to interpret the data in a JSNA or help to identify the most promising ways of improving road safety locally.

Local documents were the most commonly referenced external document. Five referred to the Local Transport Plan, and three to the local road safety strategy.

National guidance documents were not mentioned as often. Only three JSNAs used NICE guidance on road safety, behaviour change or active travel to help support their analysis.

Only one JSNA referred to WHO guidance on road safety, and then only to establish the number of traffic fatalities globally as part of its introduction section.

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4.2.6 Recommendations made in JSNAs

Although many JSNAs do not make recommendations, and there is no requirement for them to do so, eleven of the road safety sections did include a short recommendations section to summarise the main view of the evidence presented.

Some road safety sections presented clear recommendations, linked with the role of the JSNA to identify unmet needs – for instance, one of the JSNAs identified a high number of casualties amongst young motorcyclists and based recommendations around that. Several also specifically recommended the introduction of 20mph limits. Others presented more general recommendations or re-used the recommendations from the Local Transport Plan.



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4.3 Discussion of the JSNA analysis

This analysis was conducted to understand how road safety was being included in JSNAs and what the opportunities are for integrating it with wider public health issues. The analysis has shown that road safety can be a section of a JSNA, and the wide variation of headings that it appears under show the potential to include it and link it with other issues. Similarly, there is clear potential to increase the number of JSNAs that address road safety.

There were several themes that were identified by the analysis:

4.3.1 The wider impact of road safety activities

Road safety activities were mainly seen as solely to prevent injury, even though the JSNA gives considerable scope to explore the links between road safety and wider health. Few JSNAs contained a section on transport and health, which is a heading that would allow consideration of how road safety activities fit with other health issues.

There are opportunities to make links between road safety and transport and health in Joint Strategic Needs Assessments given the potential for co-benefits between the two. This is something that could and should be acted upon by Health and Wellbeing Boards given their duty to encourage integration between health related services and the role that active travel has in increasing physical activity. Where the same activity encourages the active use of the roads and improves safety there is a win-win situation.

Road safety and public health professionals can work together to get joint interventions embedded in the JSNA. This would help to establish the links between the two, show where there are co-benefits, and help influence funding decisions.

4.3.2 Variation in road safety sections

The overall picture of the forty JSNAs was a wide variation in structure, length, style and content. However, this variation did not appear to influence whether or not a road safety section was included, based on the measures recorded in this investigation.

Half of the JSNAs included a road safety section, using a wide definition of what content would be counted as such. Some excellent examples were found, and some were examples of partnership activity in themselves. For instance, one section had been jointly written between the chief Road Safety Officer and a Public Health Registrar.

Conversely, many road safety sections were short and contained very little detail on traffic injuries or the need for road safety activities. To some extent the length of the section and the data presented may be to do with the style of the JSNA and it was not possible in this analysis to identify whether some of the road safety sections had been edited and reduced in size from a larger submission. These shorter sections could be built on in later updates to the JSNA.

Where road safety was not mentioned, it is encouraging that there is scope to include it based on the wide number of places in JSNAs where it can be mentioned; this should give local public health and road safety professionals ways to build road safety into their JSNA. Road safety is often included as part of child health, probably because it is a leading cause of death for this age group

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4.3.3 Making good use of data

There is scope to make more use of local data to inform road safety and healthy transport activities in JSNA. Both public health and highways have sources of data that could be shared to understand the local opportunities to improve health. For instance, many road safety teams have access to the MAST toolkit (<http://www.roadsafetyanalysis.org/>), which combines STATS 19 data with further information on socio-demographic backgrounds to give more detailed picture of local road casualties.

Understanding variation in injuries and injury rates between smaller geographical areas locally is important, given that this analysis shows any inequalities in the local area and that reducing these inequalities is one of the overarching aims of the Public Health Outcomes Indicators. Both HES and STATS 19 data could be used for this purpose, although this approach was only found using HES data in the sample. This approach was missing in most JSNA.

Current road safety interventions and activities were commonly mentioned in the JSNAs. In some of the road safety sections, these activities were provided alongside information on effectiveness from systematic reviews. However, many JSNAs did not mention evaluations or draw conclusions about whether these activities were appropriate. Evaluations of current activities feed back into the next round of needs assessment. Toolkits are available to help public health and road safety professionals evaluate road safety interventions (<http://www.roadsafetyevaluation.com/>).

4.3.4 Making good use of guidance

There are many guidance documents that can be drawn upon to help support the analysis of road safety issues as well as proposed changes to road safety activity. The World Health Organisation has issued several documents with much detail about effective road safety that is relevant to the UK. These could be reviewed as part of the JSNA process to help identify new interventions or activities that will meet the local need for safer roads.

The already available NICE public health guidance could also be used in a similar way. There were four NICE documents that relate to road safety that were referenced in at least one JSNA; a longer list of relevant NICE guidance is presented in the further reading section.

The statutory guidance for JSNAs highlights the role of the document in identifying unmet needs amongst vulnerable groups, for instance, people with various disabilities may have quite specific road safety needs. JSNAs rarely considered how road safety activities helped to provide safe travel and access for some of these groups.

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5. The four main themes from this work.

5.1 Healthy transport is the wider issue that links road safety with public health

Transport is an important determinant of the health of a population. Chapter 2 shows several of the links between road safety and public health, ranging from the opportunities for routine physical activity, to how well people know their neighbours, or the amount of air pollution created through transport.

Safety is an important consideration that affects how people decide to travel, and, therefore, the actions of road safety and highways departments can support several wider health concerns. Understanding this wider picture to road safety activity is important for more integrated working between road safety and public health. This study has found several examples of how this joint working can take place.

The Leicestershire Travel Choice and Access Team case study shows how the links can work in practice over time and some of the mechanisms for linking the work of highways departments with public health. This is an example of trust building over time.

The work in Leicestershire also shows that transport and road safety professionals can link with Health and Wellbeing Boards. These can provide a forum for the discussion of healthy transport as they have a role to promote integrated working. Relatively few JSNAs contained transport sections and this is a barrier to discussing and drawing these links locally, although some good examples were found.

Another model is to embed public health staff into other parts of the local authority. The traffic choices website highlights an activity that resulted from a public health professional being embedded into the highways department. This approach means that professionals from different backgrounds can build a shared understanding of each other's field and helps to develop peak rapport.

5.2 Identify shared agendas between public health and road safety teams

Shared agendas can be built around the causes of ill health that are also causes of road injury. These are areas of shared concern between road safety and public health teams. Some of these links are highlighted in Chapter 2, and the speed and volume of traffic are both highlighted in the case studies.

Greater traffic volume increases air pollution and has a detrimental impact on the quality of life for the local people. The Willow Bridge case study gives an example of two areas that are geographically close but were disconnected. This meant that people used cars to travel between the two. By connecting the areas with a bridge for cyclists and pedestrians, a number of car journeys were prevented, and improving the health and wellbeing of the local communities. This idea of connecting communities and preventing traffic also applies where communities are divided by busy major roads and railways, whether in the country or city.

Traffic speed increases the risk of collisions and the severity of those collisions. It also discourages people from walking or cycling due to an increased fear of injury. The 20mph roads in the Manchester case study have the twin aims of reducing injuries and encouraging more active travel.

Another area of shared concern is to reduce health inequalities. The review of JSNA highlighted the need to identify local inequalities in injuries. Several of the case studies were designed or targeted to reduce health inequalities, such as Women on Wheels in Birmingham and Healthy Streets in Lancashire.

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5.3 Identify the co-benefits that public health and road safety activities have on each other

Many activities to improve the safety of roads have other impacts on health that support and help to meet other public health aims.

The Women on Wheels case study shows how cycle training can have benefits beyond physical activity. Social riding with the group and families improved the wellbeing of participants and also challenged some of the cultural barriers that might stop others from taking up cycling.

Asset based approaches such as the Healthy Streets case study can also have co-benefits by building on what communities already have. In this case, the 20mph roads were seen as an asset and a wide range of community activities were built around them.

Where co-benefits are identified, there is potential for funding work from more than one budget. This was happening in the Leicestershire case study, where the closer working arrangements had enabled this. Initial funding for the 20mph limits in Manchester was provided from the Public Health budget.

5.4 Evidence can support joint working

The review of JSNAs identified how data and evidence could be used to support the local case for action on road safety. Public health teams can have access to a wide amount of data and different sources of published literature that can help to show the wider picture. Conversely, highways departments and road safety professionals may have access to some more specific data sources. This exchange of information is a potential benefit to working jointly.

Similarly, evaluations of previous work were rarely mentioned in JSNAs. Public health teams may be a local source of support for evaluation expertise, or could work jointly on evaluations that assess the impact of road safety activity beyond injury prevention.

One point worth consideration is that there is already an existing evidence base for public health and road safety professionals. NICE has produced several reviews of evidence and made recommendations of what can be effective action to change behaviour, prevent injuries, or promote active travel. Internationally, the World Health Organisation has issued guidance on a range of issues that is relevant to the UK, including the safe system approach.

The adoption of the safe system principles in the Brighton case study shows that WHO guidance can be applied in England. In this case study, it formed the basis of the local road safety plan, on which the highways department could engage more widely – including with public health colleagues.

The Traffic Choices case study shows how this approach to evidence was used to create a publicly available resource, with the intention of informing members of the public about the road engineering measures that were available to them.

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6 Joint working in the longer term

6.1 Understanding how trust builds over time

With greater understanding of co-benefits and where often individual budgets are constrained, the route to meeting aims and objectives often lies in greater collaboration with professionals from other fields.

Effective collaboration requires the development of a shared sense of purpose. It also requires trust and openness, a commitment to working as partners, an understanding of the other's structures, duties, responsibilities and decision-making machinery, and a willingness to be accountable to the other partners for the undertaking of agreed tasks.

Developing strong working relationships and trust is one of the most important considerations for starting or furthering collaboration. Developing and building relationships takes time. It is important to have a clear understanding of how relationships and trust are built.

Diagram 1 below provides an at-a-glance guide as to how we each might feel in terms of building trust with those from outside our traditional professional boundaries when developing inter-sectoral collaboration - that is, relationships which may take us out of our comfort zones. New ways of working may include new ways of understanding and viewing evidence and reassessing key issues such as 'risk' and the value of individual focused interventions and population wide ones.

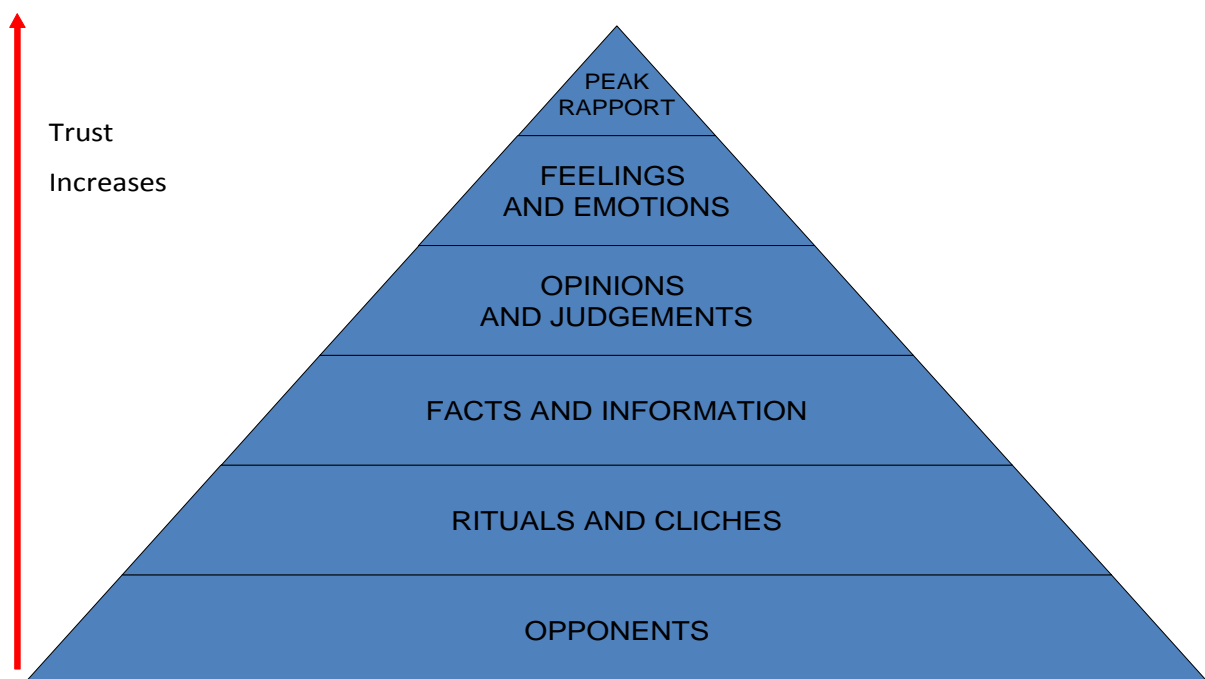


Diagram 1: building trust over time.

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6.2 Further interventions to improve healthy transport

Many promising interventions link road safety and public health work by creating environments that encourage active travel and help to create community bonds. There are many more opportunities for joint collaboration between road safety and public health teams by building on this idea further.

A focus on the social or built environment is essential in closer working in future; these are wider determinants of ill health or traffic injury that may not be immediately apparent but which underpin several issues that both professions must address. They affect road safety by influencing how people travel. Currently, many people do not always have a free choice of how they travel, and access to some locations is limited by what choices of transport are genuinely available.

The way that towns are designed has a large influence on both road safety and public health. Spatial design that assumes high levels of car ownership can create large distances between homes and shops, education, and employment. This means that people have fewer options for travel and less access to these destinations; this leads to higher motor traffic volumes and greater numbers of injuries. Low housing densities means that public transport is less feasible to provide and there are fewer destinations within walking and cycling distance.

Through the built environment, road safety and public health link with documents such as the National Planning Policy Framework (NPPF), which sets out the Government's planning policies in England. This highlights the role of planning in promoting sustainable transport modes and also sets out that local planning authorities should support patterns of development that encourage this in their own Local Plans.

The road environment also influences the amount of social contact that people have. Busy roads can segregate communities. Highways departments can look at the impact that motorized vehicle through-traffic has on both road safety and public health, and address this to limit through traffic and reduce vehicle use in residential areas. This can also be supported by planning, and the NPPF highlights that planning policies can help to create safe and accessible environments with clear pedestrian routes for instance.

Asset-based approaches to health that view the street as a community asset and includes resident's views about how the street can best serve the community has potential to link road safety with public health further.

Ultimately, joint working offers an opportunity for both road safety and public health practitioners to reflect on what values and ideas should underpin joint action. For the benefit of road safety and public health, it is necessary to ask whether society should be so dependent on cars.

7. Conclusions and recommendations

There are four main conclusions from this report. These have been used to make the following recommendations:

Healthy transport is the wider issue that links road safety with public health

The way we travel is a major determinant of how healthy people are. Road safety activities can be integrated with wider public health work by considering it alongside healthy transport and efforts to increase physical activity. Joint Strategic Needs Assessments should include road safety issues. There are opportunities to integrate the work of public health and road safety teams by developing mechanisms, such as joint funding of interventions. Relationships and the trust between the two teams must build over time..

Identify shared agendas between public health and road safety teams

Often the underpinning causes of poor health and injury are the same and should be identified as part of collaborative working. Public health and road safety are linked by factors related to the roads such as the speed and volume of traffic, which can cause injuries and prevent opportunities for healthy activity outside of the home. Social status is a large predictor of health and risk of traffic injury.

Identify the co-benefits that public health and road safety activities have on each other

Co-benefits describe the benefits that an activity has beyond its primary aim. Where road safety and public health activities have wider impact, these are the co-benefits of that activity. To integrate road safety and public health, these co-benefits must be considered when planning and evaluating work. Many road safety activities can have a positive impact on other health issues. Many road safety activities may also have an unintended negative impact on wider health.

Evidence can support joint working

Both public health and road safety teams have access to data and evidence. Sharing this can improve the effectiveness of actions and set evidence based objectives. Joint evaluations can identify whether activities are having an impact across a broad range of health issues. Greater use of already published guidance by organisations such as NICE and WHO can be used to identify effective actions.

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Appendix 1: Further Reading

The following are presented as sources of further information for some of the themes discussed in this report. All web addresses last accessed March 2014.

Essential evidence newsletter

Bristol City Council, 2014 and earlier

<http://www.travelwest.info/evidence>

Delivering accident prevention at local level in the new public health system

RoSPA, 2013

<http://www.rospace.com/about/currentcampaigns/publichealth/delivering-accident-prevention.aspx>

Obesity and the environment briefing: increasing physical activity and active travel

Public Health England, 2013

<https://www.gov.uk/government/publications/obesity-and-the-environment-briefing-increasing-physical-activity-and-active-travel>

Transport & health: briefing statement

Faculty of Public Health, 2013

<http://www.fph.org.uk/uploads/briefing%20statement%20transport%20V2.pdf>

Improving the public's health: a resource for local authorities

Kings Fund, 2013

<http://www.kingsfund.org.uk/publications/improving-publics-health>

Health on the move 2: policies for health-promoting transport

Transport and Health Study Group, 2011

<http://www.transportandhealth.org.uk>

Start active, stay active: a report on physical activity from the four home countries' Chief Medical Officers

Department of Health, 2011

<https://www.gov.uk/government/publications/start-active-stay-active-a-report-on-physical-activity-from-the-four-home-countries-chief-medical-officers>

Fair society, healthy lives (The Marmot Review): Strategic Review of Health Inequalities in England post-2010

UCL Institute of Health Equity, 2010

<http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review>

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Relevant NICE Guidance

PH6: Behaviour change: the principles for effective interventions
guidance.nice.org.uk/ph6

PH8: Physical activity and the environment
guidance.nice.org.uk/ph8

PH13 Promoting Physical Activity in the workplace
guidance.nice.org.uk/ph13

PH17 Physical activity and Children
guidance.nice.org.uk/ph17

PHG25: Prevention of CVD at a population level
guidance.nice.org.uk/ph25

PH29: Strategies to prevent unintentional injuries among under-15s
guidance.nice.org.uk/ph29

PH31: Preventing unintentional road injuries among under-15s: road design
guidance.nice.org.uk/ph31

PH41: Walking and cycling: local measures to promote walking and cycling as forms of travel or recreation
guidance.nice.org.uk/ph41

Appendix 2: Methodology

Gathering Case Studies

There were several approaches to finding case studies:

- A press release was issuedⁱⁱⁱ, which was carried in Local Transport Today and Care on the Road amongst others.
- An e-mail was issued to members of Road Safety GB, as well as added to the RSGB news feed and Road Safety GB Knowledge Centre help forum.
- A call for case studies was also circulated to members of the Transport and Health Study Group, The Association of Directors of Environment, Planning and Transport, The West Midlands Health and Planning Group and the Chartered Institute of Highways and Transportation.
- Several individuals and organisations were also contacted directly.

Twenty eight potential case studies were identified. The project steering group reviewed the long list and seven case studies were selected based on location, topic and stage of the project.

Individuals who were responsible for one or several aspects of each case study took part in semi-structured interviews. Most individuals also provided written records of the work, such as project proposals or evaluations. These sources of information were used to write the case study, which was then returned to the individual for comment and amendment, and approval for use in this report.

Review of JSNA

The review was conducted by initially randomly selecting forty Health and Wellbeing Boards. Their most recent JSNA was identified and a structured data collection form was used to identify its road safety content.

The format and instructions of the form allowed a consistent approach to analysing each JSNA and identical definitions to be used when deciding whether something was included or not.

The form was developed during an initial review of twenty Joint Strategic Needs Assessments and included the typical themes and components of these JSNAs. This initial form was then discussed with the stakeholder group and two tests were carried out to assess how consistent the form was; the same person used the form on the same JSNA twice, a week apart, and a second person used the form. The form was found to be fairly consistent, although there were some differences in what data was extracted – in part, due to the varied nature of JSNAs that were reviewed.

Following the tests, the form was updated to improve its reliability and was used to collect data from all forty JSNAs

ⁱⁱⁱ <http://www.rosipa.com/news/releases/detail/?id=1240>

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Appendix 3: References

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