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Cycling and Health - Public health experts recommend more cycling

By Philip Insall, Director, Health Sustrans, England

ycling is an active way of travelling. When you travel by bike you engage in physical activity. This directly benefits your health. Cycling is often grouped with walking under the name 'active travel', and public health experts across the world are very keen to see more people travelling actively more often.

The research evidence in favour of cycling is very strong, and each year it gets stronger. Researchers on the Copenhagen Heart Study found that *"even after adjustment for other risk factors, those who did not cycle to work experienced a 39% higher mortality rate than those who did".*



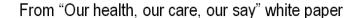
Start them young: children should be encouraged to cycle, to help them stay healthy throughout life Photo: J Bewley / Sustrans

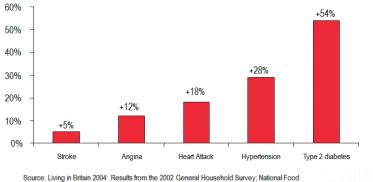
Physical activity and health

People who lead active lifestyles, through walking and cycling, physical activity at work, gardening, dance, or sport and active recreation, are healthier. However, in the United Kingdom, two-thirds of the adult population do not get even the minimum recommended amount of physical activity. This is a critical issue for public health. In 2011, the Chief Medical Officers (CMOs) of the four UK countries jointly published a report on physical activity, saying, *"regular physical activity can reduce the risk of many chronic conditions including coronary heart disease, stroke, type 2 diabetes, cancer, obesity, mental health problems and musculoskeletal conditions"* (see appendix).

Physical activity deficiency costs money: by 2050 almost 60% of the UK population could be obese, costing the UK around £50 billion (\$78 bn, €63 bn) per annum if strong action is not taken. But cycling can also deliver cost savings from improved productivity in the workplace, reduced congestion and pollution, and healthy development of children and young people.

Predicted UK growth in obesity-related disease by 2030





Survey 2000 Table B1

Health policy recommends cycling

The four CMOs state that "for most people, the easiest and most acceptable forms of physical activity are those that can be incorporated into everyday life. Examples include walking or cycling instead of travelling by car, bus or train". This recognition of active travel is now standard practice. Some other examples include:

- the British Medical Association says "transport policy should encourage a modal shift away from private motor transport towards active forms of travel which benefit health".

- the Toronto Charter on physical activity, now supported by over 100 countries, demands *"transport policies and services that prioritise and fund walking, cycling and public transit infrastructure"*.

Long term healthcare cost savings

A really important argument for decision makers is that investment in physical activity, including cycling, saves money by preventing disease. Active people have lower healthcare costs throughout their lives.

In 2012, a group of researchers writing in the medical journal "The Lancet" calculated the savings achievable from growth in walking and cycling. They found that by increasing active travel England and Wales could generate savings of £17 billion (\$26 bn, €21 bn) to the National Health Service over 20 years, and that thereafter the savings would continue to mount up, year on year.

Potential for change in travel behaviour

In the UK over two-thirds of journeys 1-5 miles (1.6-8km) long are made by car, a distance that can be cycled easily by most people. Sustrans' own work for the UK Department for Transport has shown that in representative UK cities 47% of car trips could be replaced



Cycling is a way to remain active and healthy into later life Photo: J Thomsen / Sustrans by walking, cycling or public transport, without major intervention. This potential exists in other highly motorised societies too. Of course, even greater potential exists where significant investment is made in infrastructure to support these modes.

So from a public health point of view, massive health gains and healthcare cost savings could be made very easily, simply by promoting changes in travel behaviour.

How to do it - a cross-governmental approach

Transport has a positive side: access to employment, education, services such as healthcare, green space, social activities and so on is good for health, while physical activity from walking and cycling is health-promoting. But motor transport also has major harmful effects – road danger, death and injury, air pollution, traffic noise and the severance of communities by major roads. So the optimum – from the health point of view – is the greatest possible range of access, always reachable by walking and cycling. If you can access all the local destinations you need without ever having to drive, your health will be better and so will the health of other people.



Public health policy and guidance call very clearly for two things to happen:

- changes to the physical environment making it easier to walk and cycle, and restraining private motor transport

- a shift in public investment priorities from expensive road projects to smaller, bettervalue local schemes which facilitate walking and cycling. In the UK, the National Institute for Health and Clinical Excellence (NICE) bases its public health guidance on intensive review of evidence from around the world. NICE recommends radical changes to the environments where people live, in favour of walking and cycling. Its guidance on 'Physical activity and environment' recommends, among other things, road space reallocation, traffic calming, road user charging and active travel infrastructure improvements. Likewise, the British government's Foresight report on obesity, assembled by 200 senior academic experts, noted that "the top five policy responses assessed as having the greatest average impact on levels of obesity [include] increasing walkability / cyclability of the built environment".

This is supported across the public health sector. The British Medical Association has called for *"growth targets for walking and cycling at national and regional levels, with increased funding and resources proportional to target levels"* (see appendix). This is in line with 'Take action on active travel', a joint policy call by a UK-wide group of over 100 transport and public health bodies in 2010, which says, *"invest at a realistic level: commit 10% of transport budgets to walking and cycling immediately, and in future ensure that transport funds are allocated proportionate to the new, ambitious target levels"*.

The health sector is an opinion leader, a major employer and a powerful economic force. Health professionals and health sector organisations should set a good example. Walking and cycling should be encouraged as the ideal ways to travel to healthcare for staff, visitors, and for the many patients who are able to travel actively. Health sector managers should ensure high quality walking and cycling routes, cycle parking at hospitals and health centres, and working practices to encourage active travel. And the chairman should no longer have a car parking space reserved at the main entrance!

Government as a whole should have a strategic plan to invest in cycling, so as to secure large long-term healthcare cost (and other) savings. This plan should be developed at



Setting a good example: cycle parking at the European Commission Photo: P Insall Sustrans



Pont y Werin (The People's Bridge) in Cardiff – high quality new walking and cycling infrastructure enables people to change their travel habits Photo: J Bewley / Sustrans

the level of the national Treasury or Finance Ministry, and locally at the level of the city Mayor or local government finance director. The financial allocation to transport should set targets for travel behaviour change towards cycling.

Examples

The Active Travel (Wales) Bill

In 2007, Sustrans Cymru (Wales), together with a range of Welsh organisations including the British Medical Association, called on the Welsh Government for legislation to develop and maintain a network of walking and cycling routes, to match their existing obligation regarding roads.



Sustrans "Bike It" school projects form part of Bristol's strategic approach Photo: J Bewley / Sustrans

Among the strongest arguments for the new legislation was the potential for public health. Sustrans therefore convened a group of influential public health organisations and experts, which offered strong support to the proposals.

In July 2012, the Active Travel (Wales) Bill formed part of the Welsh Government's legislative programme announced. There has been a very positive response to the White Paper, and it now seems likely that the Bill may become law, radically increasing levels of walking and cycling across Wales.

This legislative approach may be useful in other countries too. Further information can be found on the Welsh Government website (see appendix).

Bristol

It may be difficult for professionals in transport to work together with those from public health. The two professions think differently, use different methods for policy development or impact analysis, and even speak a different technical language. But it is important to make the effort, because each can help the other.

Bristol is an English city with a population of close to 400,000. The city's Director of Public Health appointed urban planning, sustainable development, and transport specialists into his team, and agreed with the city council to place these staff within the relevant council teams. They ensure physical activity, including cycling, is written into city strategies and plans, give day-to-day advice and help, and over time the whole city administration becomes more expert in transport and health.

The strong public health arguments helped Bristol to win a major government grant competition, securing £11 million (\$17 m, \in 14 m) for cycling improvements. The local Member of Parliament Dawn Primarolo said, *"For most people, a great way to keep healthy is by building physical activity into everyday life, such as cycling to work or school"*.

Bristol now publishes a useful series of evidence briefings on transport and health issues (see appendix).

Good for Business

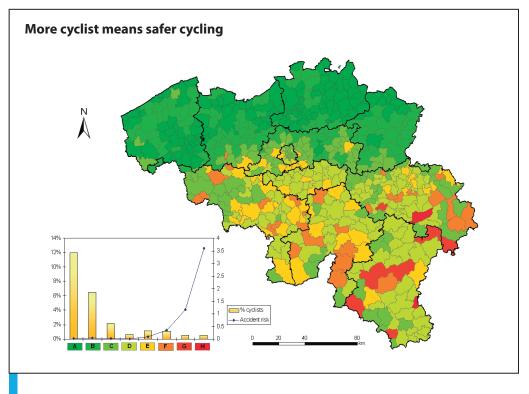
A good example of a public health body leading a campaign for active travel is 'Good for Busine\$\$', an initiative of the Heart Foundation, South Australia. This is a review of the evidence for the financial benefits to local businesses from more active travel. Heart health bodies around the world recognise the health potential of cycling, and as in this case they can take the lead in policy campaigning. Cycling groups should seek to collaborate with them, and with other major disease-specific bodies in fields where active travel is protective, such as cancer, diabetes and mental health.

Road danger and health promotion: the balance of advantage

In some countries, such as the UK, it became accepted that people travelling by car were more important than walkers and cyclists. Large volumes of fast-moving traffic were invited into town centres, and rural roads re-engineered for higher speeds and volumes of traffic. Streets and roads became more dangerous, and road safety policies discouraged pedestrians and cyclists from making the trips they wanted to make.

Today, road safety professionals generally take a more sophisticated approach, which is often called 'road danger reduction'. This seeks to reduce the risks that motor vehicles impose on other road users by reducing vehicle speeds, improving driver behaviour, and sometimes by reducing the volume of motor traffic.

However campaigners still sometimes call for legislation to make cycle helmets compulsory. This is unfortunate: a more analytical approach to the question shows that the health impact of such legislation would be negative. It would save some life-years



The Belgian communes with highest levels of cycling have the lowest accident risk for cyclists (Vandenbulcke et al, Transport Policy, March 2009)

across the population by mitigating head injuries in some road crashes, but by raising fears among existing and potential cyclists and deterring them from cycling it would cost many more, by dissuading physical activity.

Work done in the Netherlands in 2010 modelled what would happen if 500,000 Dutch people changed their behaviour to become regular cyclists. Air pollution and road crashes might cost between 6 and 49 days of life per person, but the health gains from the increased physical activity would be much greater – between 3 and 14 months per person (see appendix)!

It is also becoming clear that more people cycling makes cycling safer, an effect known as 'safety in numbers'. This is well illustrated by a Belgian study in 2009.



Innovative cycle counter in Odense, Denmark, motivates people to cycle Photo: P Osborne / Sustrans

Measuring and valuing the benefits

Public health professionals all agree that cycling is important and valuable as a way of promoting health. No tool has yet been developed which calculates the total health economic benefit of cycling, because it generates gains in so many areas of health, but the World Health Organisation has created a tool called Health Economic Assessment Tool (HEAT), which uses values for reduction in mortality from three main forms of disease, arising from any increase in cycling. HEAT is easy to use, and available free on the internet, at www.euro.who.int/HEAT.

A good illustration of the economic value of cycling can be seen with the UK National Cycle Network, coordinated by Sustrans. Usage of the Network has increased every year since 2000, showing how a long-term programme of infrastructure development can encourage and support more people to cycle more often. Using HEAT, Sustrans calculated that the cycle journeys made on the Network in 2011 had a health value of £286 million (\$445m, €360m) – this does not of course include the economic gains in other areas, such as road safety, carbon reduction and social gains.

Further reading

Government Office South West, 2010 Value for Money: An Economic Assessment of Investment in Walking and Cycling

Transport, Health and Environment Pan-European Programme – see website for documents

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