



The science of policy implementation

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Bringing together research and practice: What can we learn from the UK and Australia?

Presentation Aims

- To describe the context for the construction of the UK's research on the built environment and health
- How did we translate our research into policy?
- Transferable learning

Why is policy so important?



Conceptual framework for mapping the evidence for walking for policy

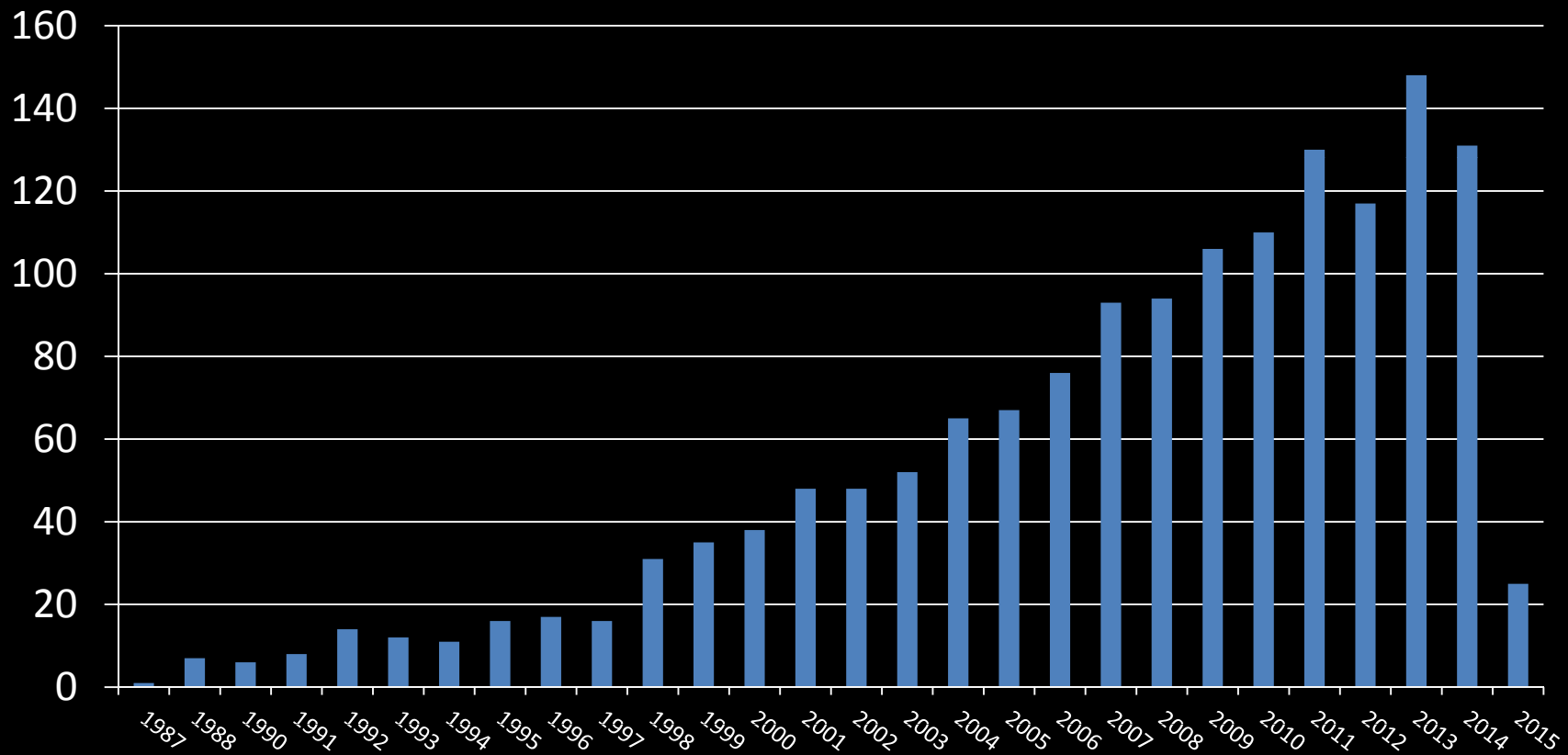
Epidemiology				Correlates	Interventions	Economics	Knowledge Transfer	Evaluation
Relationship with health outcomes	Mechanisms to achieve health outcomes	Dose and response	Behavioural patterns	Correlates & Mediators Intrapersonal Interpersonal	Interventions	Burden of disease Cost benefit Cost effectiveness Cost utility	Evidence into practice	Formative Process Outcome
What are the benefits of walking?	How are these benefits developed by walking?	What is the intensity &/or volume of walking is needed for prevention and treatment?	Who walks? What type or purpose of walking?	What helps or hinders walking?	What works to promote walking?	What are the economic costs and benefits of walking?	How do we encourage policy and practice to promote walking?	Are our walking programmes and projects achieving their aims?

POLICY

SCIENCE SCIENCE SCIENCE SCIENCE SCIENCE SCIENCE

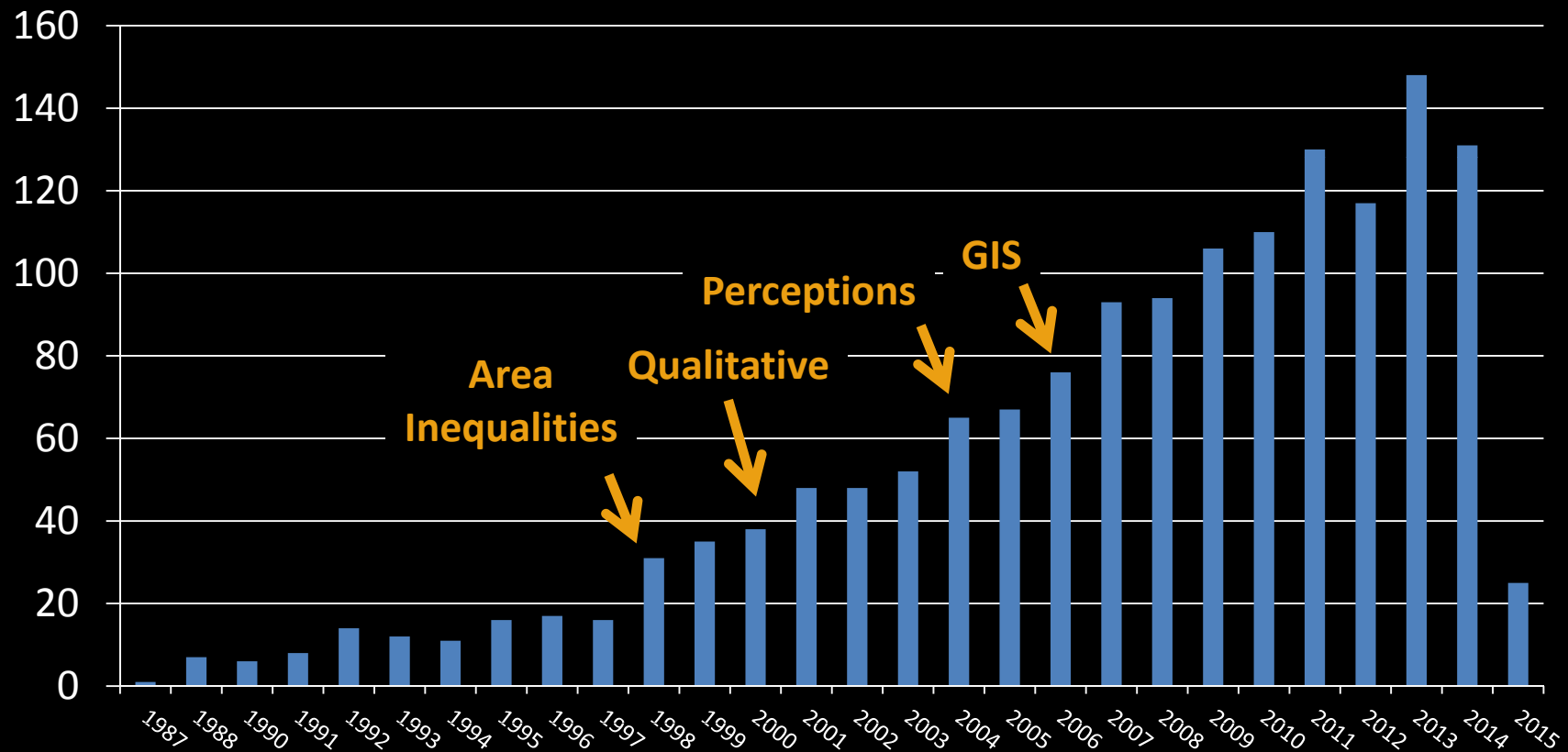
Growth of Environment and physical activity research in UK 1987-2015

Hits



Growth of Environment and physical activity research in UK 1987-2015

Hits



A plethora of Policy

At least five a week

Evidence on the impact of physical activity and its relationship to health
A report from the Chief Medical Officer

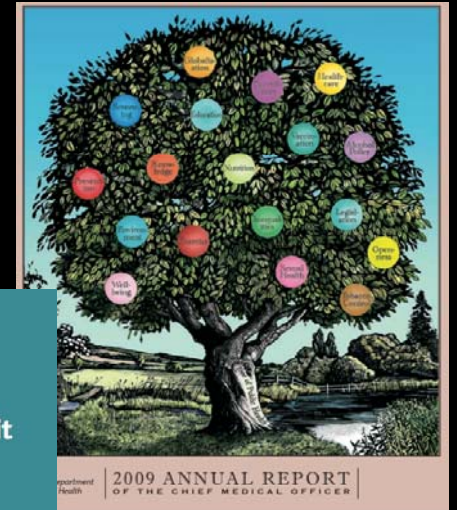
Transport for London

CYCLE SAFETY ACTION PLAN



Creating a sporting habit for life

A new youth sport strategy



2009 ANNUAL REPORT OF THE CHIEF MEDICAL OFFICER



Cycling Delivery Plan

HM Government

Healthy Lives, Healthy People:

Our strategy for public health in England

HM Government

MAYOR OF LONDON

Moving More, Living More The Physical Activity Olympic and Paralympic Legacy for the Nation

February 2014

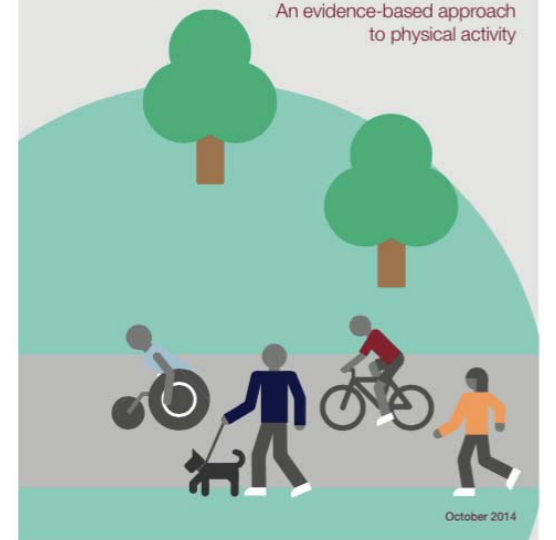
LOTTERY FUNDED SPORT ENGLAND

Public Health England

Protecting and improving the nation's health

Everybody active, every day

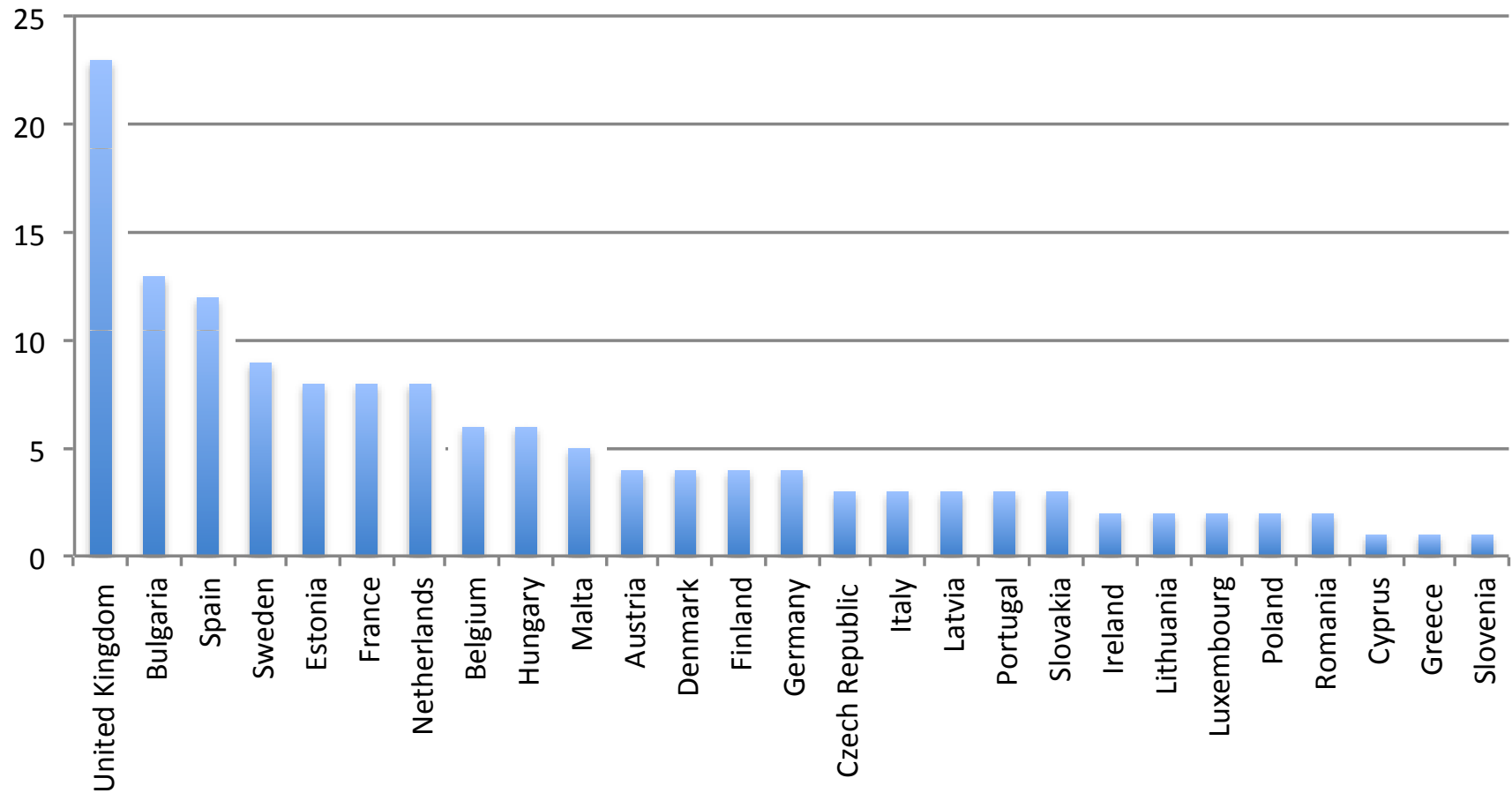
An evidence-based approach to physical activity



October 2014

We are the European leaders in production of policy documents

Number of physical activity policies in each European Union member state (WHO 2010)



Academic development

- Environment became a new area of research
 - Theory
 - Development of exposure measures (perceptions, audits, GIS)
 - Frustration with RCTs impact
- Growth of environment studies with interventions
- Scaled up to larger population studies

History of UK Physical Activity & Environment

1990

2000

2010

2015

Academic

Morris &
Hardman
Paper

Traffic
Air pollution
Potholes

Theory

Policy

1995: new message and national strategy

A national strategy for the promotion of physical activity

Three years ago, as part of the Health of the Nation strategy, the Government appointed a Physical Activity Task Force. It was charged with developing detailed national strategies for the promotion of physical activity. It was asked to consider gaps in current knowledge and to suggest means of filling them. Its remit also included the

Sports Medicine, the Centers for Disease Control, and the President's Council for Physical Fitness and Sport Recommendation (1993).⁵ The recommendation has been reinforced by the recent publication of the US Surgeon General's report.⁶ This recommendation proposes that "every American adult should accumulate 30

"on balance it has been decided not to set targets for physical activity, but to concentrate instead on promoting the uptake of a more active lifestyle"

Department of Health's (1995) consultation document.

History of UK Physical Activity & Environment

1990

Academic

2000

Evaluation of A4L
included perceptions of
environment questions –
First time in UK

2010

Policy

Active for Life
campaign

2015

***ACTIVE* for LIFE**

Campaign 1996-2000

**Regular moderate activity is the key:
30 minutes of moderate intensity activity on five days of the week or;
*'half an hour a day'***

Major communications campaign with paid advertising; public relations; support to professionals



EXERCISE BIKE



MAKE ACTIVITY A PART OF YOUR LIFE

*Half an hour's physical activity
five times a week will keep you*

ACTIVE for LIFE

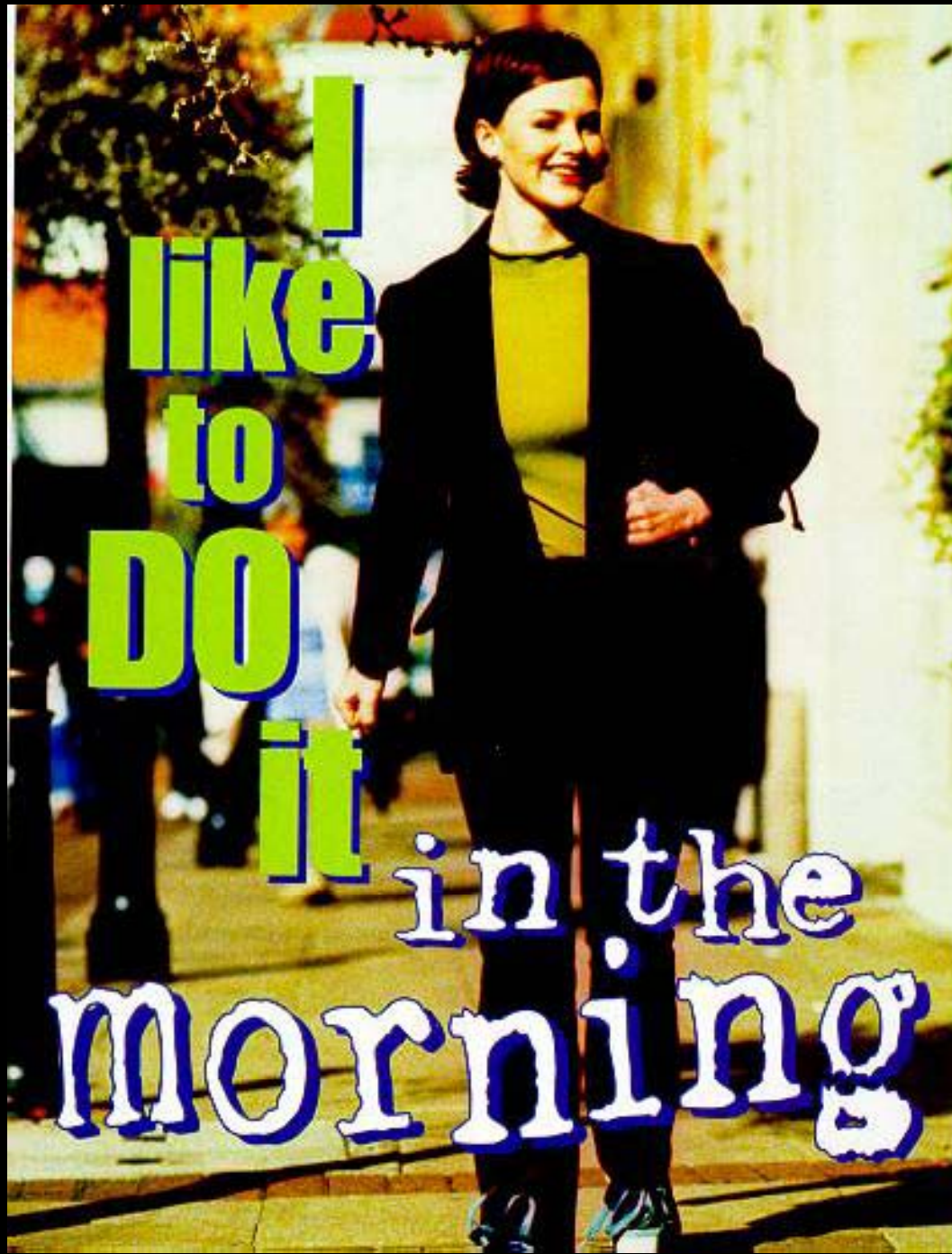


- 1996: launch the 'new message'
- Target: general population



- 1997:
Older people (50+)





- 1998:
16-24 year old
women

GO FOR LIFE
www.active.org.uk

USE YOUR OWN ENGINE

Brisk walking can improve your health and well-being. Try leaving the car at home and make walking or cycling part of your daily routine.

are you doing your bit?



- 1999:
Transport
- Major
conference
“Moving On”

Why the shift in 1999?

- Political imperatives; shift from libertarian
- Concerns over nanny state
- Tired of individual behaviouralist approaches?
- Health education – health promotion
- Jakarta charter WHO – 1997
- Healthy public policy; supportive environments
- Emergence of environmental literature
- Upstream focus
- Led by evidence? partly

History of UK Physical Activity & Environment

1990

Academic

Policy

2000

Use of GIS tools in environment and physical activity studies

Perceptions of environment

Audits of environment

Active for Life campaign

2010

2015

English Regions Cycling Development Team

- Set up 2002 by dept for transport
- To support national cycling strategy
- Aimed to quadruple cycling 1996-2012
- Work with local authorities to identify and overcome practical obstacles to reaching the target
- Conducted 'qualitative assessment of the maintenance of cycle facilities'



**ERC DT Local Authority Assessment
2004 Progress Review Reporting Form for local cycling groups**

Local Authority: **Cambridgeshire County Council**

Completed by: **Agreed response of
Committee** **Representing:** **Cambridge Cycling
Campaign**

Tel. number: **(01223) 690718**

Email: **contact@camcycle.org.uk**

Date completed: **July/August 2004**

In each of the following boxes the cycling group should give a written description of progress on the specified assessment criterion between July 2003 and June 2004. The guidance document available at www.nationalcyclingstrategy.org.uk can be used to identify where they feel the authority could be seen to have made progress or regressed. Where appropriate please supply evidence to substantiate the written comments.

The campaign group should attempt to keep comments in each section to an average of 250 words for each.

Criterion A: Local Transport Plan and Cycling Strategy

Unless the authority has published a new cycling strategy since the first assessment, nothing should be reported in this section.

If a new cycling strategy has been produced we would like to know the following:

- 1. How has your group been consulted at all stages in the development of the strategy and how well are your comments reflected in the final document?*
- 2. If the strategy was fully implemented how well do you feel it would improve provision for cyclists within the authority area?*

Your comments:

Not applicable.

Criterion B: Annual Progress Report

Please comment on the following issues regarding the production of the APR. Note we are not seeking views on its content as the 2004 APR will not be produced until after the closing date for this consultation.:

- 1. Has your group been consulted during the preparation of the 2004 APR?*
- 2. In the past, how well has the completed APR been distributed and publicised?*

Criteria for 'bicycle bell score'

- Local transport plan and cycling strategy
- Annual progress report
- Council commitment
- Infrastructure
- Cyclist training
- Marketing and promotion
- Stakeholder engagement
- Wider engagement
- planning for cycling
- Targets and monitoring

Why is the ERCDT interesting?

- They were doing environmental audits
- In practice – as they were only just emerging in the academic literature
- NOT for academic purposes
- Purely to provide baseline; increase focus; investment in cycling

History of UK Physical Activity & Environment

1990

2000

2010

2015

Academic

Accelerometers
& GPS units used

Studies were scaled up

Policy

Active for Life
campaign

History of UK Physical Activity & Environment

1990

Academic

Policy

2000

Active for Life
campaign

UK Review of
environmental
interventions

2010

NICE reviews of
Global literature
Intervention &
Correlates review
Road closures: no physical activity but
casualties etc

2015

NICE (PH8)

- (Charlie) describe innovative aspects of NICE lit reviews
- First in UK
- Very clear and thorough process
- Formal searching was unproductive grey good
- BUT only initially considered production of evidence-based guidance as the endpoint

Field-testing physical activity guidance: UK

As transport planners we're being absolutely bombarded with all this helpful advice and information. But it's how we can actually make best use of that to help us to achieve our aims.

Transport planner; focus group

What this recommendation talks about is priority and we don't actually give priority to people like cyclists and walkers...you're actually talking about saying... 'let's close these roads and give them back to the cyclists and the walkers'. We've got to be bold.

Planning policy maker; focus group

Building Health

Creating and enhancing places for healthy, active lives

Blueprint for action

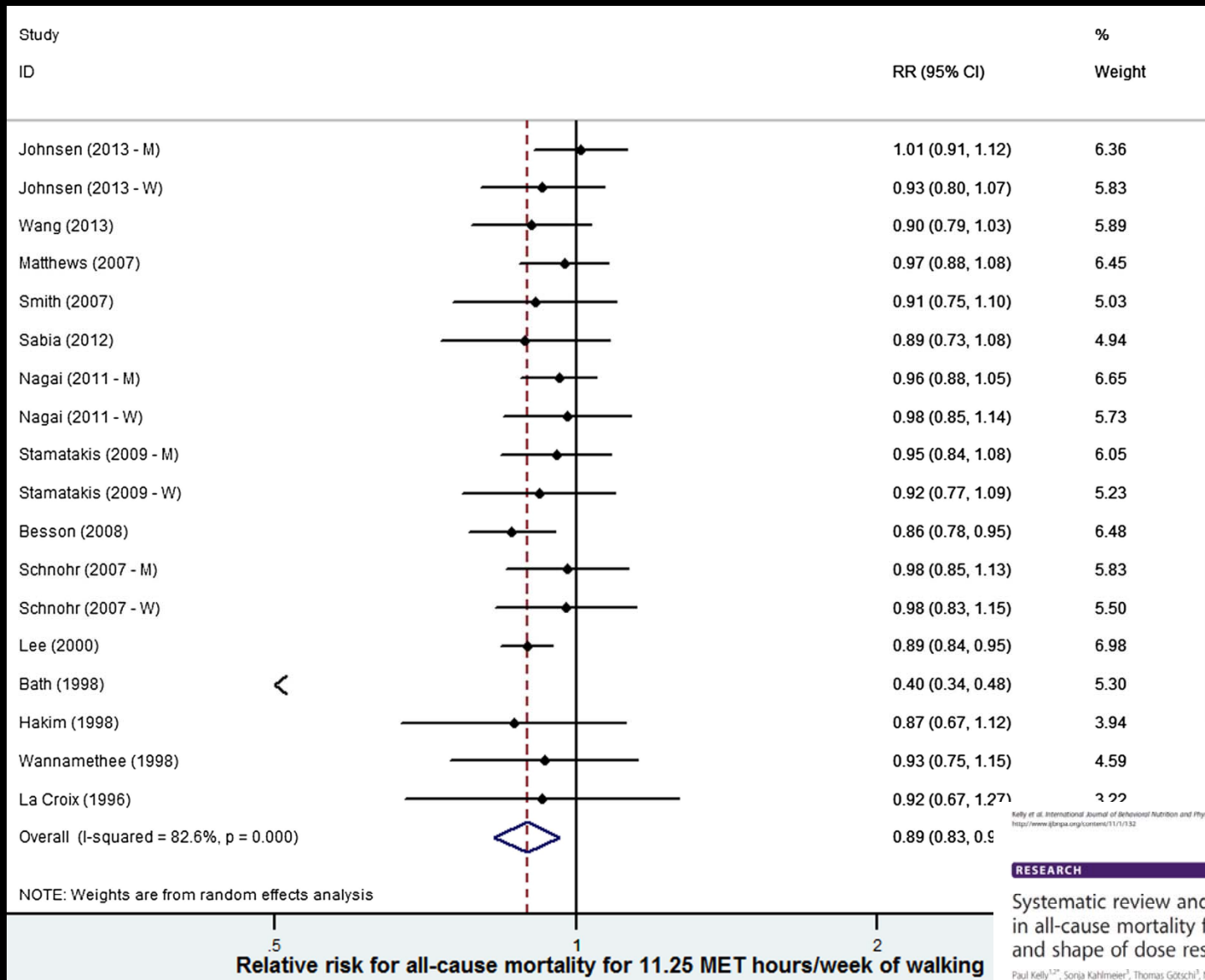


NATIONAL 
Heart Forum

LIVING STREETS 



Risk reduction for all cause mortality for an additional 11.25 MET.hours per week of walking (studies displayed by quality score).



Kelly et al. International Journal of Behavioral Nutrition and Physical Activity 2014, 11:132
<http://www.ijbnpa.org/content/11/1/132>



RESEARCH Open Access

Systematic review and meta-analysis of reduction in all-cause mortality from walking and cycling and shape of dose response relationship

Paul Kelly^{1*}, Sonia Kahlmeier², Thomas Götschi², Nicola Orsini³, Justin Richards⁵, Nia Roberts⁶, Peter Scarborough¹ and Charlie Foster¹

Table 2. Benefits and Costs of Cycling Demonstration Towns

Impact	Estimate of benefits and costs over 10 year period (£m, 2007 prices and values)
Reduced mortality	Benefit of £45 million
Decongestion	Benefit of £7 million
Reduced absenteeism	Benefit of £1-3 million
Amenity	Benefit of £9 million
Accidents	Disbenefit of £0-£15 million
TOTAL BENEFITS	£47-64 million
Costs	£18 million
Benefit-Cost Ratio	2.6 – 3.5

Physical activity accounted for >70% of benefits

www.cavill.net/pages/page/reports/

▲ HEAT for walking

Q1: Single or before / after

Q2: Walking data type

Q3: Duration

Q7: Population

Walking Summary

Q8: All current walking or
change

Q11: Mortality rate

Q12: Value of life

Q13: Time period for
averaging

Q14: Benefit–cost ratio

Q16: Discount rate

Result

Home ▶ for walking ▶ Result

HEAT estimate

Reduced mortality as a result of changes in walking behaviour

The walking data you have entered corresponds to an average of **10** minutes per person per day.

This level of walking provides **an estimated** protective benefit of: **5 %** (compared to persons not walking regularly)

From the data you have entered, the number of individuals who benefit from this level of walking is: **150,000**

Out of this many individuals, the number who would be expected to die if they were not walking regularly would be: **953.18**

The number of deaths per year that are prevented by this level of walking is: 44

Financial savings as a result of walking

Currency: EUR, rounded to 1000

The value of statistical life in your population is:	2,587,000
The annual benefit of this level of walking, per year, is:	113,026,000
The total benefits accumulated over 10 years are:	1,130,264,000
When future benefits are discounted by 5 % per year:	
the current value of the average annual benefit, averaged across 10 years is:	87,276,000
the current value of the total benefits accumulated over 10 years is:	872,760,000

History of UK Physical Activity & Environment

1990

2000

2010

2015

Academic

PEACH
SPEEDY
FAST

Personalised
lifespaces

Policy

Active for Life
campaign

NICE Environment
& Physical activity 1

History of UK Physical Activity & Environment

1990

2000

2010

2015

Academic

iConnect
Cambridge Busway

Wearable Cameras

Integrated technology

Policy

NICE Environment
& Physical activity 2

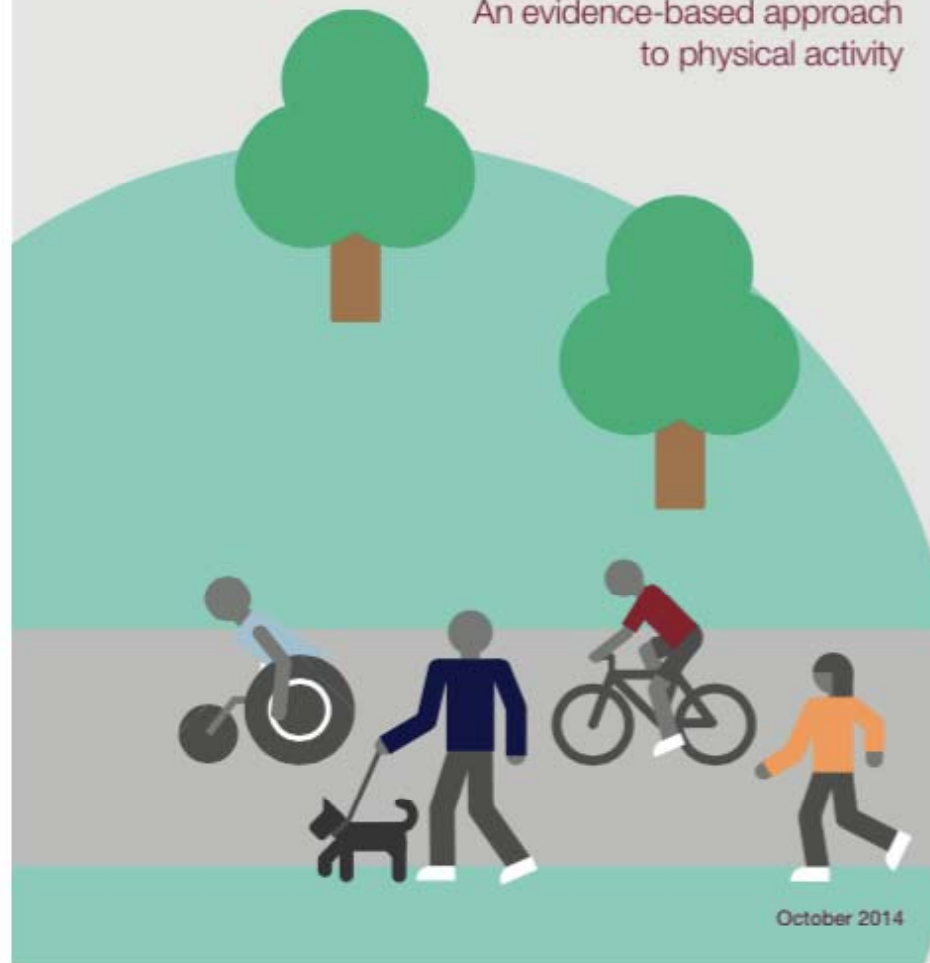


Public Health
England

Protecting and improving the nation's health

Everybody active, every day

An evidence-based approach
to physical activity



October 2014

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What is needed next?

- Redefine what is the environment?
 - Hardware & software
 - Change our metrics away from health to social, political and economic goals
 - We value more than DALYs!
- Embrace dynamic and personalised exposure measures of environment
 - Not only people and their spaces but peoples and their places (who, where, what & WHY!)
 - e.g. *Digital breadcrumbs*
- Big data – scale, national, global (IPEN++)
 - Behaviour and the environmental exposures
- LMICS are different

What's in your toolbox?



What's in your toolbox?

Research evidence

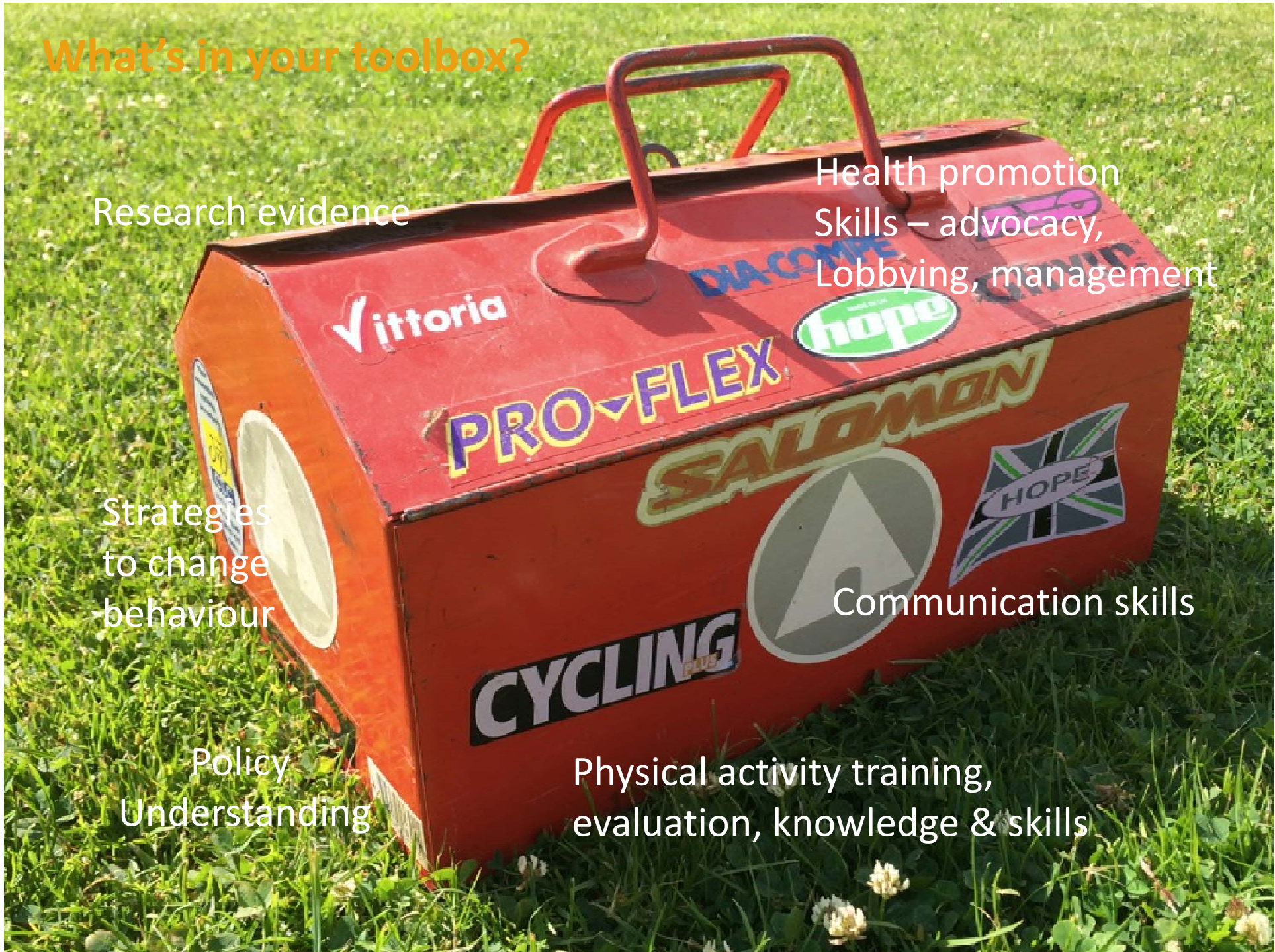
Health promotion
Skills – advocacy,
Lobbying, management

Strategies
to change
behaviour

Communication skills

Policy
Understanding

Physical activity training,
evaluation, knowledge & skills



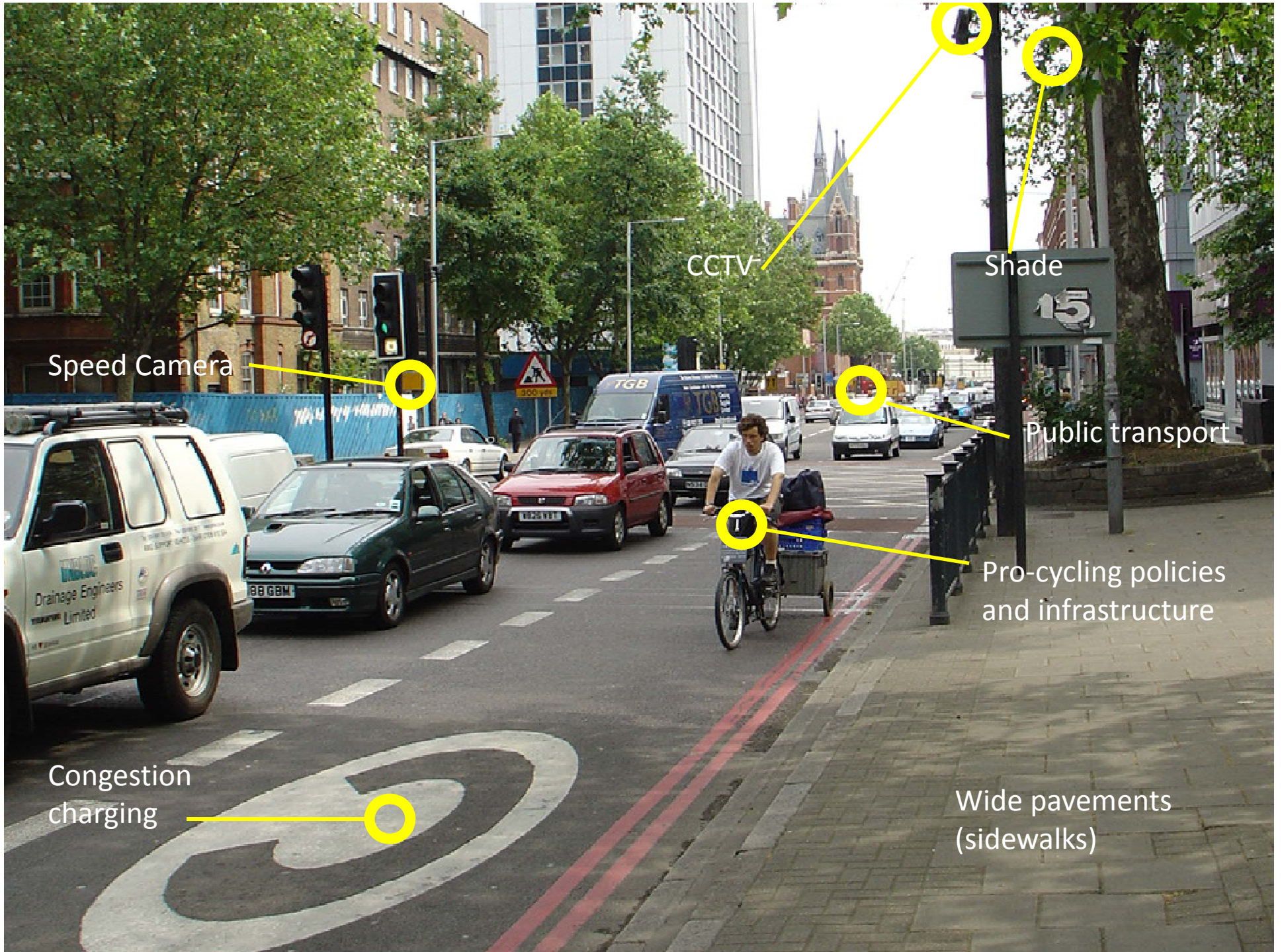
Why does policy *implementation* matter so much?

- It's not just about the policy
- It can all go wrong in the implementation of a good policy





What's making this environment healthy?



Speed Camera

CCTV

Shade

Public transport

Pro-cycling policies and infrastructure

Wide pavements (sidewalks)

Congestion charging



Conclusions

- Evidence of the problem can drive policy
- Policy can drive evidence
- Capitalise on the opportunities each can offer the other
- Sometimes good evidence is not good enough



British Heart Foundation Centre for Population Approaches to NCD Prevention



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WHO Collaborating Centre
on Population Approaches to Non-Communicable Disease Prevention