

The prevention paradox and population strategies applied to transport: *an evidence-led approach*

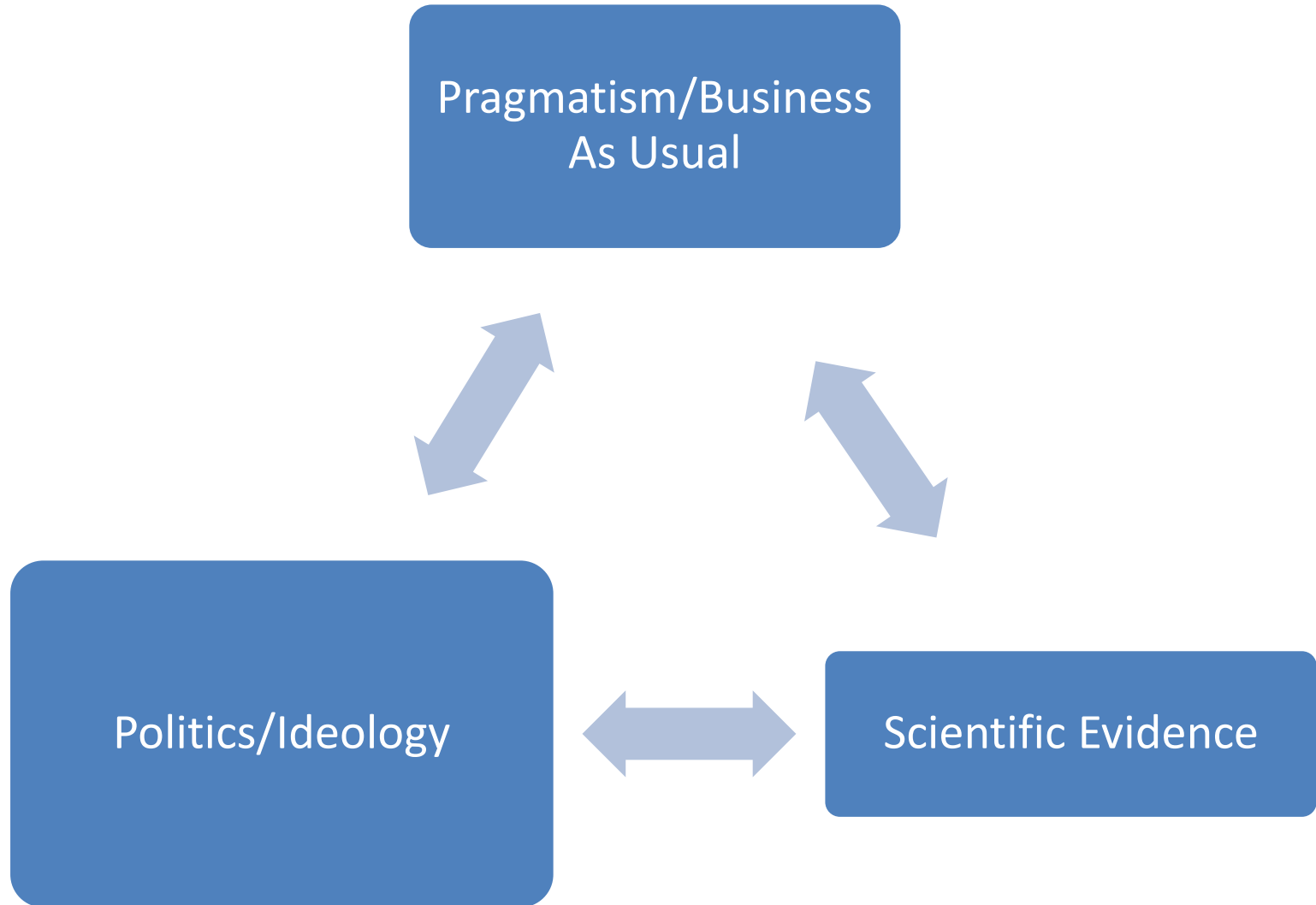
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The bounded reality triad of local govt



Translating findings and evidence

“It has been acknowledged that a large gulf remains between what we know and what we practise. Hence a task, if not the main task, is to improve knowledge transfer.”

International Public Health Symposium on Environment and Health Research. WHO 2008 *Science for Policy, Policy for Science: Bridging the Gap*, Madrid, Spain, 20–22 October 2008 Report, Copenhagen: WHO Regional Office for Europe



Evidence in local government

“The successes of the evidence-based healthcare movement have been much trumpeted... Strikingly, local government work on the determinants of health appears to be one arena in which this paradigm was largely absent.”

Phillips, G., Green, J 2015 Working for the public health: politics, localism and epistemologies of practice, *Sociology of Health & Illness*, 37(4).



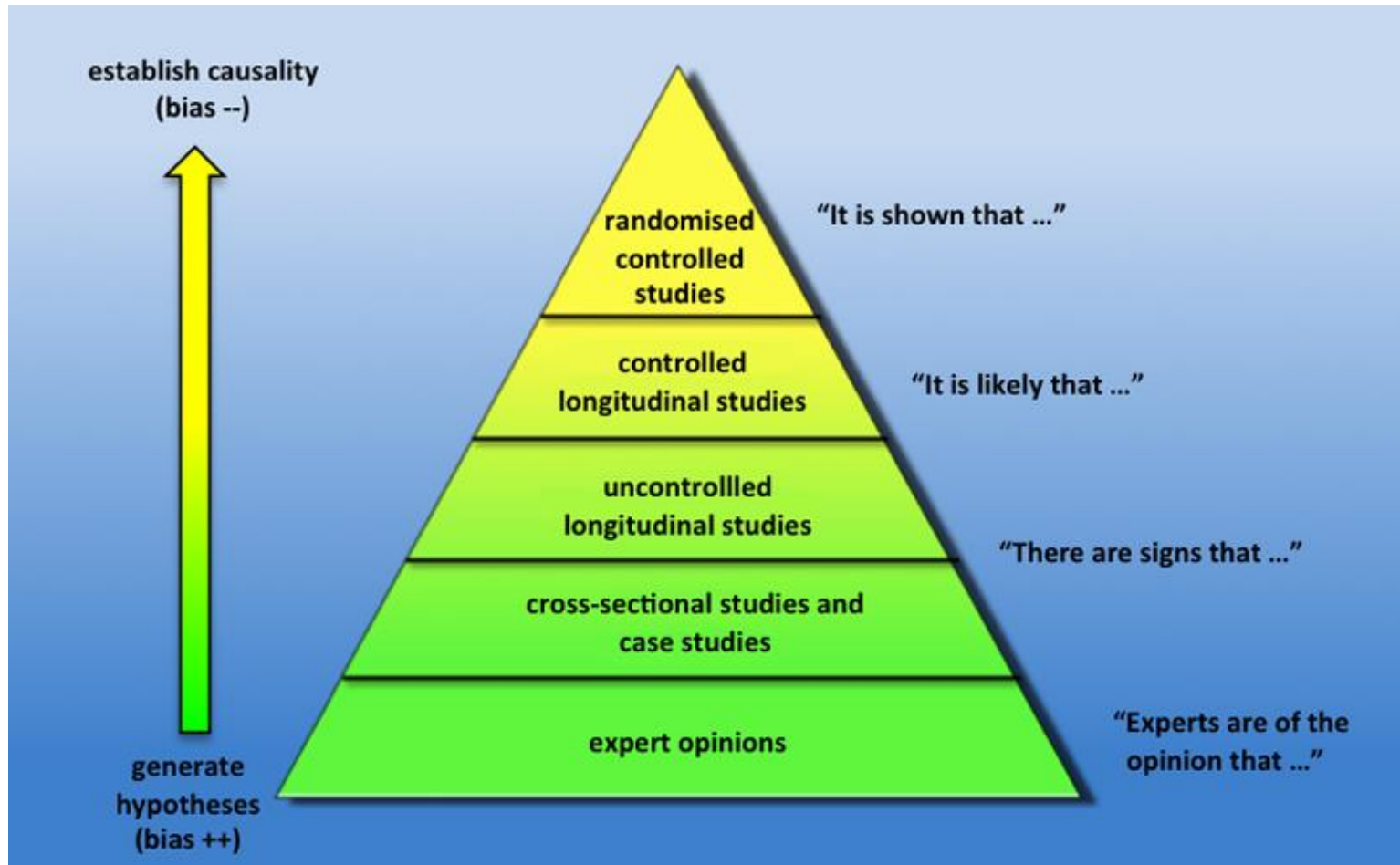
Some insights on recent practice

“I have never considered research as a method of looking at a particular road safety issue. Whilst aware that obviously research was being undertaken, and from time to time hearing about it, I have never given it much credence [or] seriously looked at it as any more than general information”

Hewson, P. 2007 Evidence-based practice in road casualty reduction, Injury Prevention, 3;291-292



Evidence hierarchy



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20mph Speed Limit Pilot Areas

Sections: [Information about the 20mph speed limit and its benefits](#) | [Public engagement leaflets](#) | [Frequently asked questions](#) | [Your opportunity to respond to the statutory \(formal\) consultation](#) | [Monitoring](#) | [Health and community issues](#) | [Contact us](#)

Information about the 20mph speed limit and its benefits

Bristol City Council's Cycling City project, in partnership with the [Active Bristol](#) programme are proposing to introduce pilot 20mph speed limits across two residential areas at Inner East Bristol and Inner South Bristol.

Pilot area maps

- [Inner East Bristol Pilot Area](#)
Wards affected: Ashley, Easton, Eastville, Lawrence Hill, St George West
- [Inner South Bristol Pilot Area](#)
Wards affected: Bedminster, Lawrence Hill, Southville, Windmill Hill



Objectives

The primary objective is to make walking and cycling around these areas safe and more attractive thereby

20mph speed limits:

Building and using an evidence base

- Designed pilot with qualitative and quantitative measurements
 - Reviewed 20mph literature internationally for health and other impacts
 - Commissioned primary research to support programme
 - Bid for research funding ie NIHR
 - Built links with key researchers in the field and policy experts internationally
 - Have a clear evidence audit trail of rationale for policy and practice decisions
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Road Danger Reduction

- Knowledge Transfer Partnership funded with Bristol City Council and UWE (ph) – 9 months
- Investigate potential for shift from casualty reduction (ie *to* reduce danger at source)
- Modelled on Vision Zero (SE) & Sustainable Safety (NT)
- Key aspect: speed – 20mph for residential streets to reduce violence from traffic



Road Danger Reduction in Bristol

Report on a Knowledge Transfer Partnership
project - August 2010

Research Associate: Thomas Calvert.
Steering group: Michael Baugh, Dr Adrian Davis,
Dr Paul Pilkington



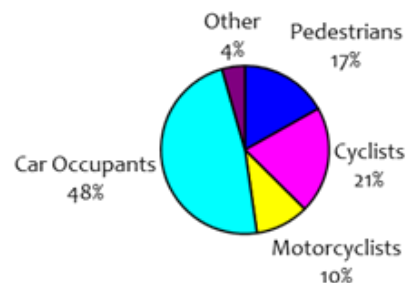
University of the
West of England

bettertogether

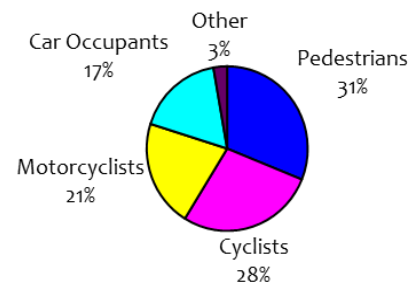
Who Gets Hurt?

- And who gets hurt the most?

All Casualties by Road User Group
2010 to 2012 Totals
(3-year average)



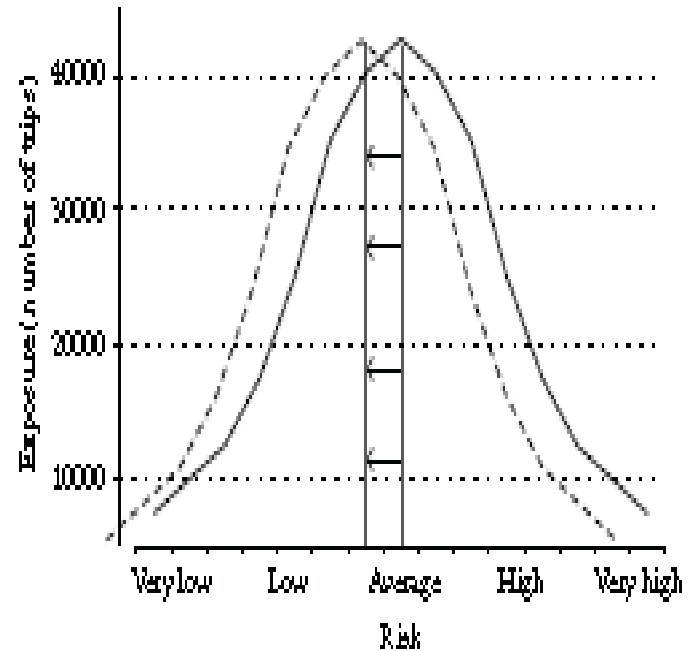
Killed & Seriously Injured in Bristol:
Casualties by Road User Group
2010 to 2012 Totals
(3-year average)



- In 2012, 50 pedestrians, 29 cyclists, 34 motorcyclists, 20 car occupants were killed or seriously injured on Bristol's roads
- In the period 2008 to 2010, the 25 most deprived Super Output Areas in Bristol had 21% of KSI casualties
- The 25 least deprived Super Output Areas had 5% of KSI casualties

The prevention paradox and population strategies applied to transport

- Interventions addressing a large number of people who are at a small risk may be more effective in reducing injury and illness than interventions addressing small numbers at high risk..



Theoretical distribution of the exposure to risk of road death and injury, showing a reduction in the average exposure for the entire continuum of risk (dotted line).

A Safe Systems Approach to **Road Safety in Bristol**

A Ten Year Plan



Reducing Road Danger in Bristol

- **Vision:** *Bristol should be a city safe for a 10 year old to walk independently to school*
- **A Safe System Approach:**
 - - life & health should not be sacrificed for mobility
 - - human error should not lead to death or serious injury
 - - vulnerable road users should not be exposed to forces which are likely to result in serious injury
 - - road users need to be encouraged to behave with care and avoid unsafe violations
- **We aim for**
 - Safer Roads
 - Safer Speeds
 - Safer Road Users
 - Safer Vehicles



Proposition: Increase the importance of robust evidence as standard

- The primacy of an evidence-based approach – the power of the science of the population level strategies and the prevention paradox
 - Should not all transport departments have someone trained in evidence reviews... to ensure managers and politicians have the best available evidence?
 - Translational research to be research to practitioners need much greater emphasis
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• Thank you

- adrian.davis@bristol.gov.uk
- www.travelwest.info/evidence
 - www.pteg.net
- <http://www.euro.who.int/en/health-topics/environment-and-health/Transport-and-health>
- www.elsevier.com/locate/jth

