



Public Health  
England

Protecting and improving the nation's health

# Partnerships between science and society: Challenges and opportunities in evidence-based public health advice

Isabel Oliver

Director of Research, Translation and Innovation and deputy Director National Infection Service

Sli.do #A853

# The myth of the broken system

With an abundance of public health research showing the need for action, why is the translation of science into practice and policy so slow?

*“Public health is both art and science, but it shouldn’t be an act of faith. Too often, the evidence needed to inform decision-making at all levels of practice is hard to come by, of questionable quality and uncertain relevance. This affects the ability of the public health function to operate effectively, and the extent to which it is able to improve health” (King’s Fund, Evidence and Public Health: Towards a common framework, 2000)*

*The gap between discovery of new research findings and their application in public health and policy settings is extensive in time lapse, completeness, and fidelity (Ross et al Building capacity for evidence-based public health: Reconciling the pulls of practice and the push of research. Annu Rev Public Health. 2018 Apr 1; 39: 27–53)*



# Timely evidence

Severn Trent Water's Mythe water treatment plant was flooded on July 22, leaving 350,000 people (140,000 households) without water for 17 days.



Matching the pace of research with rapid needs is a challenge in health protection



## Ministers urged to consider closing schools during swine flu pandemic

**Infectious disease experts say closures could reduce number of swine flu cases and buy time until vaccine is available**

Denis Campbell,  
Polly Curtis and  
James Meikle

Tue 21 Jul 2009  
09:24 BST



Ministers have been urged to rethink their policy of keeping schools open through the swine flu pandemic after research showed that a shutdown would curb the spread of infection and limit the number of deaths.

As [Andy Burnham](#), the health secretary, announced that a flu helpline to take the pressure off GPs' surgeries would go live this week, two infectious disease experts said school closures should be considered to reduce the number of cases and buy time until a vaccine is available.

[Schools](#) across Britain have now broken up for summer holidays and experts hope this will help to slow the spread of the virus. But there are fears that when classes resume in the autumn the number of cases will increase rapidly.

# The right evidence

How well aligned are our priorities?



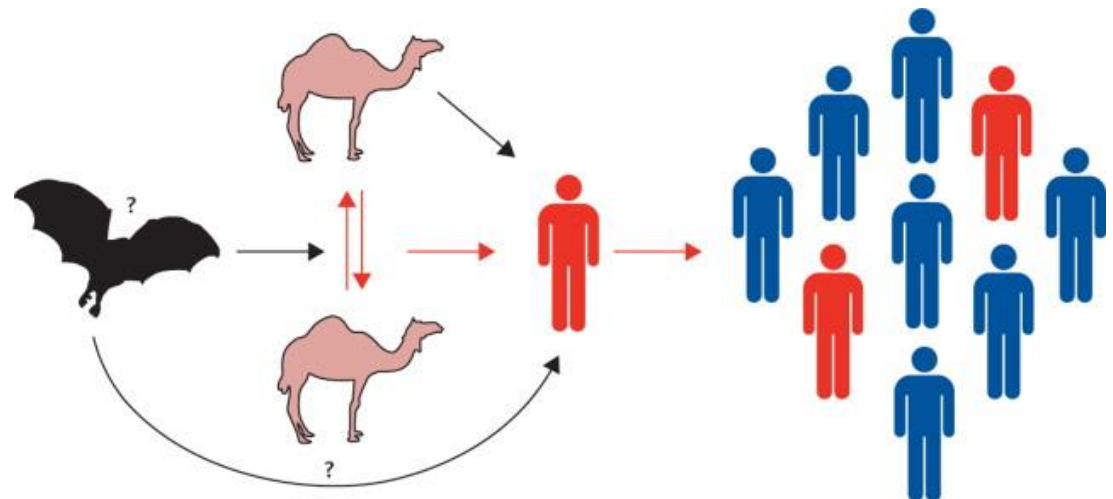
# Sufficient evidence

When do you have sufficient evidence to make decisions?



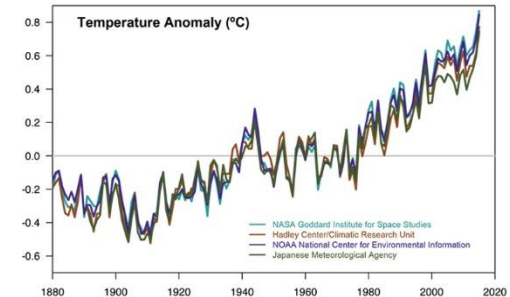
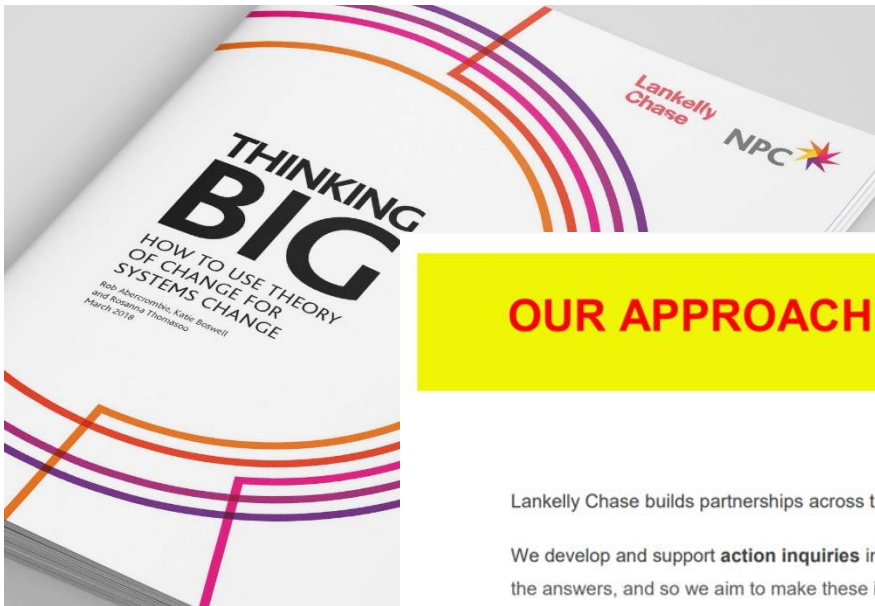
# Emerging / evolving evidence

There are times when decisions need to be made where the evidence is limited or emerging .  
Being transparent is key



# Constraining / restrictive evidence

New approaches are needed to identify and implement interventions that take into account a complex set of system-level factors. Data alone does not produce change



## OUR APPROACH TO CHANGE

Lankelly Chase builds partnerships across the UK to change the systems that perpetuate severe and multiple disadvantage.

We develop and support **action inquiries** into the changes that are needed. We don't think any one person or organisation has all the answers, and so we aim to make these inquiries as collective and collaborative as possible.

Through years of working with people tackling issues such as homelessness, drug misuse, violence, mental ill health and poverty, we've observed that the systems which are effective in responding to severe and multiple disadvantage have some common qualities. We call these qualities **systems behaviours**.

Our action inquiries therefore aim to create the **conditions** within which these system behaviours can be tested, understood and promoted.

# The role of PHE in evidence-based advice

- Identify research priorities
- Undertake research
- Influence research funding
- Review evidence
- Formulate advice
- Influence policy makers
- Evaluate interventions

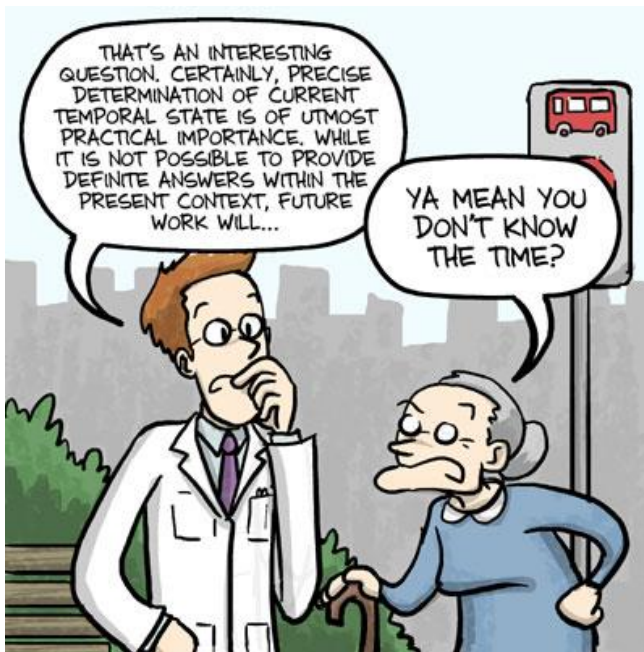


# Some things I have learned

- Framing research questions that can answer the real issues
- Diversity (social, professional, public / private)
- New approaches to collaborations
- Challenges in bringing together political will with finances and science
- Expertise is relative
- Need to prepare for new threats
- Don't underestimate policy and decision makers
- We need a common language
- Vast opportunities for knowledge mobilisation
- Turn data into policy relevant stories

# Public Health advice that is relevant

*The art of decision making often involves knowing what information is important to a particular stakeholder at the right time often when a policy “window” is open.* (Kingdon JW. *Agendas, Alternatives, And Public Policies*. New York: Pearson; 2010)



Perhaps the biggest challenge lies in the disconnect between how researchers disseminate their findings and how practitioners learn about the latest evidence

**Table 1**

Preferred Methods for Disseminating or Learning about the Latest Research-based Evidence, United States

Method	Researchers % <sup>a</sup> (rank) <sup>b</sup>	Local practitioners % <sup>a</sup> (rank) <sup>c</sup>	Local practitioners % <sup>a</sup> (rank) <sup>d</sup>	State practitioners % <sup>a</sup> (rank) <sup>e</sup>
Academic journals	100 (1)	35 (3)	33 (4)	50 (2)
Academic conferences	92.5 (2)	24 (5)	22 (5)	17.5 (6)
Reports to funders	68 (3)	--	--	--
Press releases	62 (4)	--	12.5 (7)	--
Seminars or workshops	61 (5)	50 (1)	53 (1)	59 (1)
Face-to-face meetings with stakeholders	53 (6)	15 (7)	11 (6)	15 (7)
Media interviews	51 (7)	--	1 (9)	--
Policy briefs	26 (8)	24 (5)	17 (6)	30 (4)
Email alerts	22 (9)	46 (2)	34 (3)	40 (3)
Professional associations	--	30 (4)	48 (2)	24.5 (5)

<sup>a</sup>The percentage is determined for any method ranked as one of three top choices.

<sup>b</sup>Based on a study of US public health researchers (n=266) ([18](#), [136](#)).

<sup>c</sup>Based on a study of US local public health department employees (n=147) ([102](#)).

<sup>d</sup>Based on a study of US local public health department employees (n=849) ([64](#)).

<sup>e</sup>Based on a study of US state public health department employees (n=596) ([102](#)).

