

Chair: Jenifer White

Historic England

## SESSION 1B: THE ROLE AND VALUE OF PARKS IN THE 21ST CENTURY – INSIGHTS FROM RESEARCH



# THE FUTURE OF PUBLIC PARKS

## POLICY, PRACTICE & RESEARCH



Historic England

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UNIVERSITY OF LEEDS



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# QUESTIONS



# How the value of parks in terms of their contribution to cost-effective health and social care can best be acknowledged, supported and developed?

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Improving Wellbeing through Urban Nature: IWUN

<http://iwun.uk>

# Haven't we been here before?

“We now need to create a national consensus that parks and public spaces are a genuine political and financial priority”

Cabe Space (2004) Manifesto for Better Public Spaces  
<http://webarchive.nationalarchives.gov.uk/20110118111954/http://www.cabe.org.uk/files/manifesto-for-better-public-spaces.pdf>



# Why value parks?

“The ability to retain or increase revenue budgets, as well as secure a share of any available capital, relies on the ability of individual officers to produce the right business case and identify strategic priorities, and the ability of politicians to represent this business case at cabinet level, scrutiny panels and Local Strategic Partnerships”

Cabe Space 2006 Urban parks Do you know what you're getting for your money?  
<http://webarchive.nationalarchives.gov.uk/20110118180243/http://www.cabe.org.uk/files/urban-parks.pdf>



# About IWUN <http://iwun.uk>

- Funder: NERC led RCUK Valuing Nature Health and Wellbeing Call
- Project runs for 3 years from 6 June 2016
- 13 academics across 3 universities- interdisciplinary
- 5 post-doctoral researchers, 1 PhD student and a project manager
- Partnering with The Wildlife Trusts, the Centre for Sustainable Healthcare and Recovery Enterprises and working closely with stakeholders- cross sectoral
- Based on a Sheffield case study
- **Focuses on the relationship between mental health and the NE**

# IWUN aims

- Evaluate the ways in which the quality and quantity of urban green space impacts on the health and wellbeing of Sheffield residents
- Explore the cultures and values that influence how people of different ages and backgrounds **interact with the natural environment**
- Find out more about **which aspects of the natural environment are beneficial for health and wellbeing**
- Evaluate whether a smartphone app connecting people with nature can improve health and wellbeing
- **Develop a method to measure the cost-effectiveness of natural environments to help determine the ways in which they could play a significant part in the UK's future healthcare arrangements**
- Work out how urban green space can be used to deliver health and social care



# The value of parks

Parks are a classic public good generating a wider range of benefits for a wide range of beneficiaries

Infographic courtesy of:

[http://hamptonrec.org/?page\\_id=444](http://hamptonrec.org/?page_id=444)





# Who benefits, who pays?

- Many (probably most) of these benefits cannot be 'captured' in market terms (that is, people cannot be excluded from enjoying the benefits arising from parks) and are, therefore, not reflected in the price/value of parks, narrowly defined.
- In short, there is a mismatch between the distribution of the costs and benefits of the provision of parks. Those who enjoy most of the benefits typically bear few, if any, of the costs.

# The role of the public sector

- This is why parks are normally provided by the public sector (because the private sector can't charge for the benefits arising and it is the best way for society as a whole to gain the benefits).
- Unfortunately, political economic circumstances – the present institutional structure of markets and governance, combined with austerity – are challenging this position (i.e. that the provision of parks by the public sector produces very substantial net benefits to society and so should continue or be expanded).

# Public sector accounting

- These circumstances are made very clear by Vivid Economics' 2016 study of "The contribution made by Sheffield's parks to the wellbeing of the city's citizens."
- The parks are of huge benefit to the city, yet their continued provision is threatened by further cuts to SCC's budget.

£145m  
£554m

£35m

£36m  
£1.29b

Services	Beneficiaries					Total	Share of value	In financial accounts
	Sheffield City Council	Public services	Residents	Businesses	Global			
Assets						Value		
Recreation	3					3	-	3
Parking	2					2	-	2
Leases (commercial, café)	10					10	1%	10
Fibre (timber)	2					2	-	2
Mental health		29	74	42		145	1%	-
Physical health		216	338			554	42%	-
Grants	3					3	-	3
Residential property uplift			237			237	18%	
Clean air		40	49			89	7%	
Carbon storage in trees and soil					120	120	9%	
Temperature				84		84	6%	
Wildlife		6				6	-	
Crime	14		52			66	5%	
Flood risk mgt	2					2	-	
Gross asset value	35	291	412-750	126-464	120	1,321	100%	20
<b>Liabilities</b>								
Operational expenditure	(23)					(23)	62%	(23)
CAPEX (core + optional backlog)	(14)					(14)	38%	(14)
Total liability	(36)					(36)	100%	(36)
Total net asset value	(1)	291	412-750	126-464	120	1,285		(16)
Share of net value	0%	23%	32%-58%	10%-36%	9%	100%		

Note: Benefits for households from residential property uplift are adjusted to avoid double counting of health benefits.  
Source: Vivid Economics

# How IWUN will build on the work by Vivid Economics

- Vivid used national averages of park benefits and applied them to Sheffield to gross up.
- IWUN will develop this approach by:
  - (i) Using much more detailed and locally derived data on the character and distribution of Sheffield's green spaces, and on the mental health and wellbeing benefits it generates;
  - (ii) Incorporating this into a more detailed Cost-Utility Analysis that analyses the distribution of costs and benefits from the outset, rather than after the fact.
  - (iii) Incorporating the same measurement technique used by NICE (National Institute for Health and Care Excellence) to enable comparisons of cost-effectiveness with conventional therapies e.g. a prescription of anti-depressants

# How we will value the health benefits

- We will use our new insights into park use and the health generating characteristics of the NE to design a suite of interventions together with our stakeholders
- We will measure changes in health related quality of life (HRQoL) using QALYs
- QALYs are a combined measure of health status and the length of time spent in a particular health state: 1 QALY is equivalent to 1 year of life in full health
- The NICE threshold for willingness to fund interventions: an intervention is deemed to be cost-effective if the cost of producing 1 extra QALY < £30,000
- In IWUN we will use an App (Shmapped) to measure exposure to nature and changes in App users mental health and quality of life using validated measures: EQ-5D-5L and ReQoL-10
- Participants' responses against these measures can be converted into health state values that can be used to estimate QALYs
- We can then match the cost of our interventions with the QALYs gained and compare the cost per QALY across different interventions/therapies

# Shmapped!

Win up to  
£500 in  
vouchers!\*

Map the good things about Sheffield  
to help improve the city's spaces!

The universities of Derby and Sheffield and Sheffield & Rotherham Wildlife Trust are inviting you to take part in an innovative new project to map the good things about Sheffield's green and built spaces.

We want to understand how urban living affects our wellbeing, help people enjoy their surroundings and help our town planners to design better spaces.

Go to [wildsheffield.com/shmapped](http://wildsheffield.com/shmapped) to find out more and to find your nearest guided walk.

## How do I take part?

Download the FREE  
Shmapped app from your phone's  
app store...

...and answer the questions  
about wellbeing.

All information collected  
is anonymous.

\*see FAQs in app

Facebook: @shmapped

Twitter: @Shmapped\_IWUN

Instagram: @Shmapped

**IWUN**  
Improving wellbeing  
through urban nature



Visit: [www.iwun.uk](http://www.iwun.uk)

Email: [k.mcewan@derby.ac.uk](mailto:k.mcewan@derby.ac.uk)



# What Shmapped will measure

- **Frequency of exposure to NEs**
- **Length of exposure**
- **Type of exposure (type of NE/activity)**
- Mental health and quality of life
- Perceived biodiversity
- Nature connection and engagement with natural beauty
- What app users notice and appreciate
- Demographics

# Implications of our valuation?

- Demonstrating the value of our interventions and parks more generally
- An aid to decision making- how can a local authority spend a limited public health/parks budget most effectively?
- Implications for all forms of local service provision
- The start of a process leading to more joined up policy, governance and practice
- Exploring ways in which the distribution of costs and benefits may be better matched, the better to support continued investment in urban green spaces e.g. Income from social/green prescriptions used to fund parks
- At a more structural level, organisational internalisation of costs and benefits e.g. the devolution of the NHS budget to Greater Manchester.

# Limitations and issues with a valuation approach

- Valuation approaches makes a number of assumptions e.g. about park usage; about a causal relationship between parks and health and wellbeing outcomes.
- Benton et al. (2016) reviewed the 12 strongest natural experiments conducted on green space interventions designed to increase physical activity and analysed the risk of bias using the Cochrane Risk of Bias Assessment Tool: for non-randomized Studies of Interventions (ACROBAT-NRSI)- finding that 12 of the physical activity outcomes analysed had a “critical risk” of bias, and 3 had a “serious risk” of bias

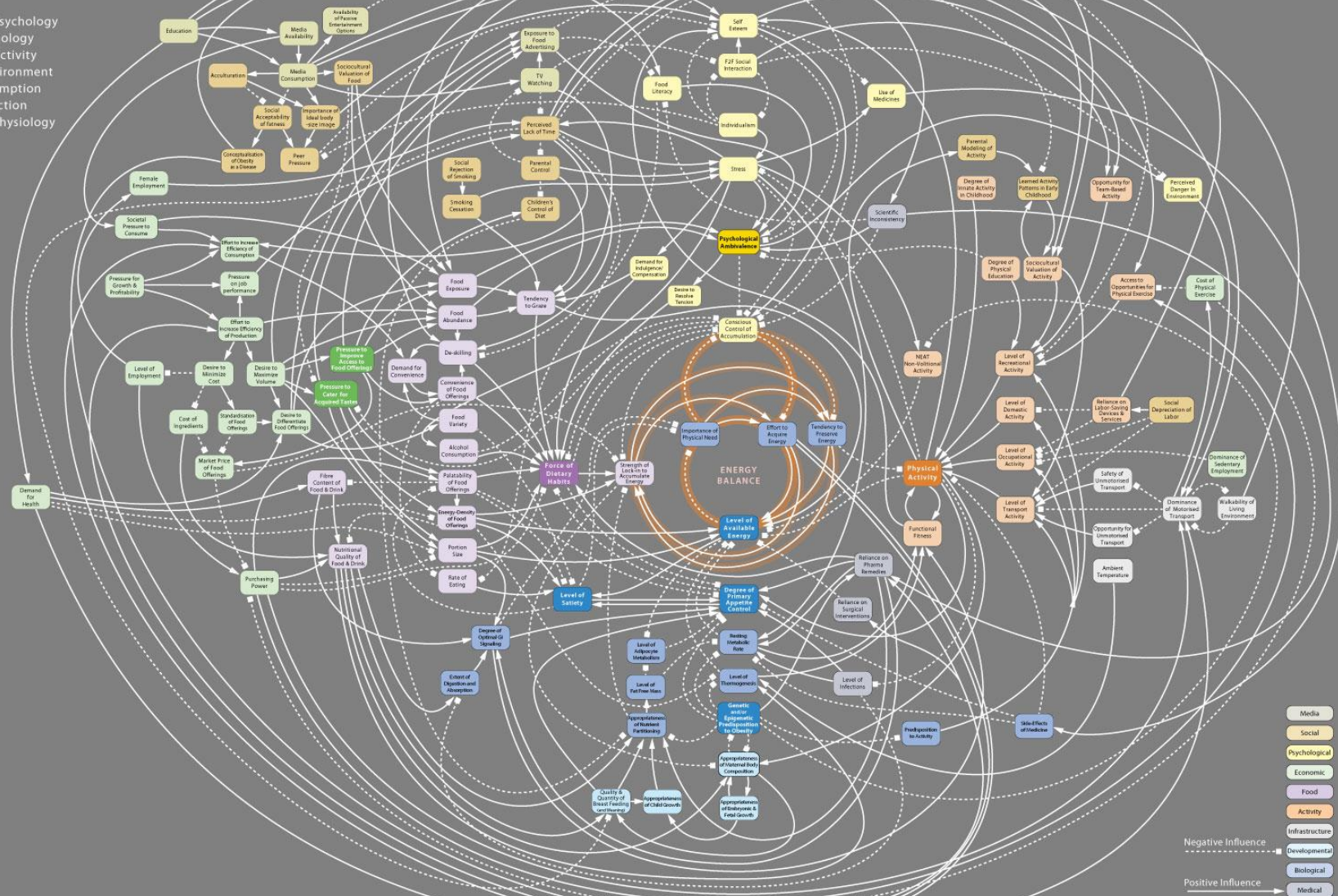
Benton, J.S., Anderson, J., Hunter, R.F. and French, D.P. 2016 The effect of changing the built environment on physical activity: a quantitative review of the risk of bias in natural experiments. *International Journal of Behavioral Nutrition and Physical Activity*, 13: 107.

# Recommendations from Benton et al. (2016)

1. Better matching of control sites and more nuanced use of graded exposure;
2. Use of multiple control sites;
3. Controlling for confounding domains;
4. Publishing study protocols with a priori analyses specified;
5. Use of adequate outcome measurements;
6. Better reporting of samples and interventions;
7. Sample size calculations; and
8. Measuring exposure to the intervention at the individual level.

### Shift<sup>®</sup> Obesity System Influence Diagram

**Full Map**

Food Consumption  
Food ProductionFood Production  
Individual Physiology

shift<sup>®</sup>  
clarity in complexity

# Where do we go from here?

- On one hand there's an ongoing need for stronger evidence, e.g. in relation to usage and causation, that we can base our valuations on, to which IWUN, GHIA and other NERC Valuing Nature funded projects are contributing
- BUT- will evidence and valuation alone make a difference?
- Is it equally important to understand the values and decision pathways that influence park futures and seek to engage with those?
- Can we afford to wait until we have the perfect evidence base- is it more urgent now to devise holistic interventions that work across the sectoral silos and to evaluate them?
- And is it about strong leadership? Or a coalition of organisations and interests?



Andrew Smith, University of Westminster

## ENTREPRENEURIAL PARKS

## THE POTENTIAL AND PITFALLS OF COMMERCIALISATION



# Potential

**Valuable assets**

**(Qualified) public support**

**Can achieve wider objectives (not just £)**

- Security / safety
- Animation / activity
- Facilities
- Diversifying user profiles





# Pitfalls

## Ideological concerns

*Exclusion, denigration, precedent*

## Other issues

- Where does the income go?
- An excuse to reduce grants?
- Some parks benefit
  - ...at the expense of others?
- Disenfranchising?





# Commercial events

## Lucrative source of income

*From ground rent +/- % of ticket revenue*

## Attract new users

*Both directly and indirectly (via publicity / image)*

## Commercialisation

*Triple threat*

## Effects on other park users

*Before, during and after events*

## Environmental challenges

*Noise + damage to natural / built environments*





# Commercial events: recommendations

Large-scale events cannot be justified by income alone

*Communications and public accessibility key*

Need for clearer regulations (limiting time / space occupied)

*...and park events policies*





# Final observations

- Potential for greater ‘exploitation’: but are significant costs
- *Implications for governance of parks*
- Ideally want commercial activity that achieves more than money
- *Dangers associated with discourse of funding ‘crisis’*
- **Red lines:** public accessibility and environmental integrity





# Contact details and publications



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- **Smith, A. (2016) *Events in the City. Using Public Spaces as Event Venues*. Routledge (paperback Aug 2017)**
- Smith, A. (2014) From green park to theme park? Evolving legacy visions for London's Olympic Park. *Architectural Research Quarterly*, 18(4), pp.315-323
- Smith, A. (2014) Borrowing public space to stage major events. The Greenwich Park controversy. *Urban Studies*, 51(2), pp. 247–263

# Evidence to improve the allocation of resources to green space

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**Report prepared for Future of Public Parks  
conference**

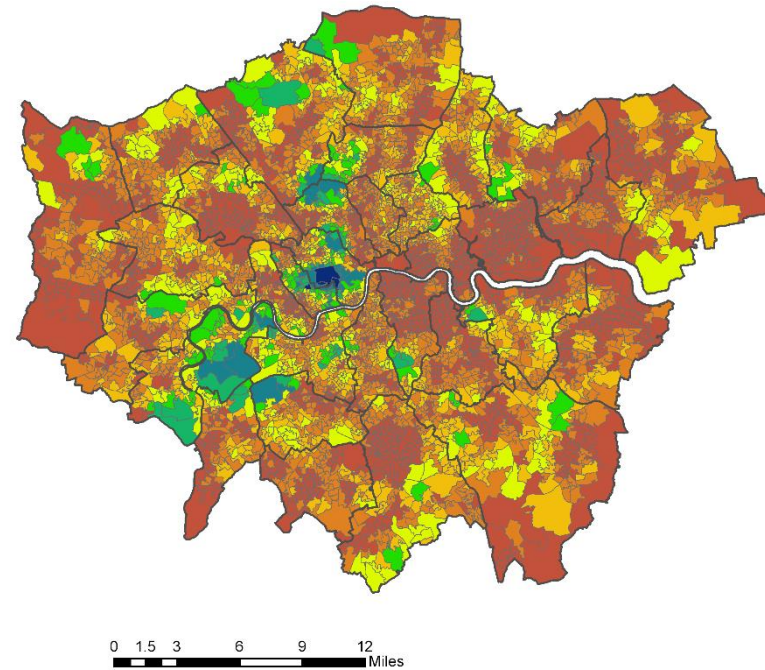
- 13<sup>th</sup> July 2017



## Distorted decisions

- Standard financial accounts record local authority's transactions
- Accounts for liabilities only, almost all services are missing
- Falsely reports zero or low return on investment
- Encourages divestment

Amenity value per household (£/yr)



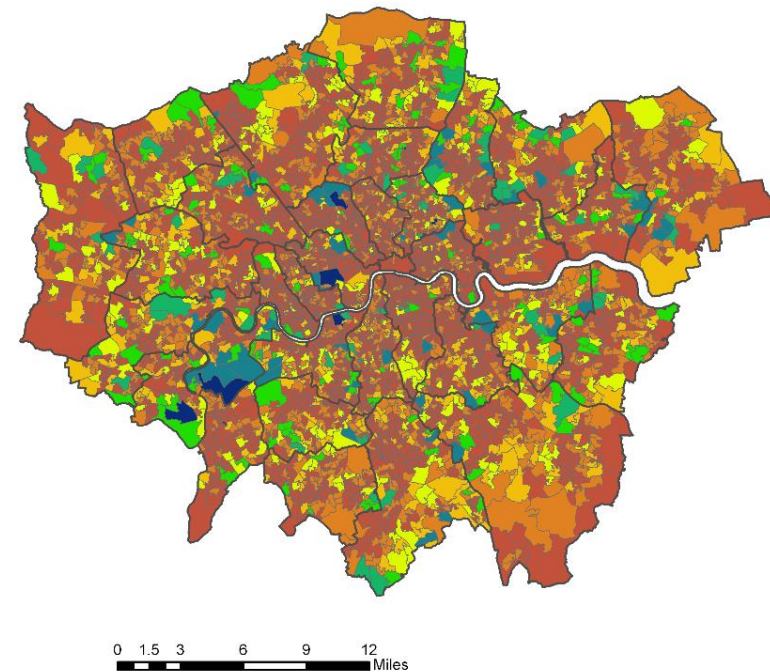
## Accounts recording all principal services

Assets/liabilities	Local authority	Public services (health)	HH	Business	Global	Value	
<b>Assets</b>							
Recreation			XX			XX	
Mental health		X	X	X		X	
Physical health		X	X	X		X	
Amenity			XXX			XXX	
<b>Gross asset value</b>							
<b>Liabilities</b>							
Operational expenditure	X					X	
Total liabilities	X					X	

*Note:* HH refers to households.

- Managing in the public interest
- Include services in the accounts
- Services
  - target consumers
  - quality
  - outcomes
- Asset portfolio
  - composition
  - location
  - co-investment with other forms of capital
- Governance
- Funding

Mental health savings/HH (£/yr)



### Areas for improved evidence

- How does the composition of public greenspace affect usage and services?
- How does patronage and how do outcomes vary with quality of greenspace?
- How can use of greenspace contribute to social cohesion?
- What services can streetscapes contribute and in what ways can they contribute to parks?



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**Company Profile**

Vivid Economics is a leading strategic economics consultancy with global reach. We strive to create lasting value for our clients, both in government and the private sector, and for society at large.

We are a premier consultant in the policy-commerce interface and resource and environment-intensive sectors, where we advise on the most critical and complex policy and commercial questions facing clients around the world. The success we bring to our clients reflects a strong partnership culture, solid foundation of skills and analytical assets, and close cooperation with a large network of contacts across key organisations.

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**Practice areas**

Energy & Industry  
Natural Resources  
Public & Private Finance

Growth & Development  
Competitiveness & Innovation  
Cities & Infrastructure