So what? Developing recommendations for policy, practice and research

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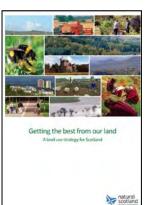


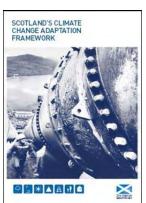


Policy and Practice

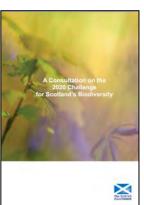


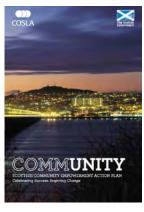
Greenspace, health and well-being intersect a wide range of topics of policy and practice



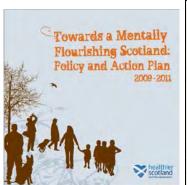








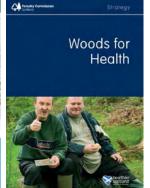














Policy and Evidence



Structured review of 55 policy related documents (to mid-2012)

Key words from objectives



(The Top 20!)

Associations with Greenspace



Key words (characteristics) linked to greenspace and quoted in policy documents

travel cultural sustainable transpo recreation education safe active climate natural

Health and Greenspace



Review of policy and strategies (2000 to 2009)

- Physical and mental health received relatively low attention in planning policies
- Health-related documents had strong emphasis on health and well-being of children (obesity a common topic)
- Most documents presumed links between health, activity and greenspace, but few had pointers to relevant evidence
- Notable references to health and well-being by Forestry Commission

Aims and Indicators



Aims or Indicators - Greenspace

allotments distribution people Condition woodland gardens use accessibility number habitat value green-networks areas biodiversity

allotments distribution people Quality
Condition woodland gardens use accessibility
National People Quality
areas biodiversity
areas biodiversity

Aims or Indicators – Health & wellbeing

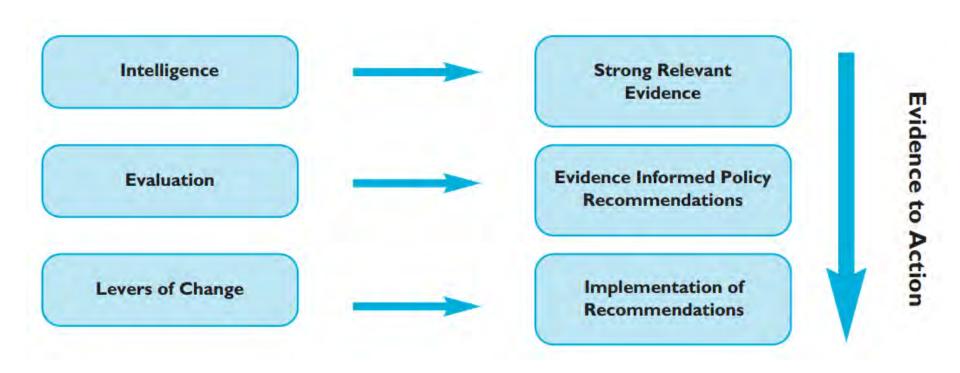
Keywords associated with indicators



Good Places, Better Health



Intelligence, evaluation and levers systems



(Source: Good Places, Better Health, Implementation Plan, 2008)

Increasing Evidence



Example GreenHealth contributions to peer reviewed scientific literature







For example, morbidity and mortality, stress & destressing, individual and community well-being

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ease cite this article in press as: Mitchell, R., is physical activity in natural environments better for mental health than physical activity in of avironments?, Social Science & Medicine (2012), doi:10.1016/j.socscimed.2012.04.012

health and wellbeing. This short study used an observational design to ask whether such effects can be detected in every day settings, at a population level. The research question was: do people who visit/

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stress and general wellbeing were also captured, allowing exploration of relationships between cortisol wellbeing and exposure to green space close to home. Results indicate significant relationships between self-reported stress (P< 0.01), diurnal patterns of cortisol secretion (P<0.05), and quantity of green space self-reported stress (P-0.01), dismard patterns of certois of excellent (P-0.02), and quantity of genes space removes a supplication (P-0.02) and independent predictor of the concilant control (p-0.02) and good. We conclude that salvary control measurement offsets considerable potential the registering can be developed to confirm and settlered findings under the confirmation of the c

There is an expanding body of research exploring the relationship between green space and health, from national level epidemiological studies (de Vries, Verheij, Groenewegen, & Spreeuwenberg, 2003: Maas, Verheij, Groenewegen, de Vries, & wenberg, 2006; Mitchell & Popham, 2007, 2008; van den

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sergi, waan, verinei, a Goberneweger, 2010) in very inclainsta under studies (Grain, Ivarsson, Stigodotter, & Bengtsson, 2010) and exper-imental studies (Hartig, Evans, Jammer, Davies, & Garling, 2003; Hartig, Mang, & Evans, 1991; Park et al., 2007; Park, Tsunetsugu, Kasetani, Kagawa, & Miyazaki, 2010; van den Berg & Custers, 2011; van den Berg. Koole. & van der Wulp. 2003). There is evidence for a positive relationship between access to green or natural envi-ronments and people's perceived overall general health (de Vries et al., 2003; Maas et al., 2006), mental health (Grahn & Stigsdotter, 2003; Hartig et al., 2003; Maas, Verheij, et al., 2009; Ottosson & Grahn, 2005), longevity (Takano, Nakamura, & Watanabe, 2002), physical health (Coombes, Jones, & Hillsdon, 2010; Humpel, Owen, & Leslie, 2002) and social health (de Vries, 2010; Kim & Kaplan, 2004; Kweon, Sullivan, & Wiley, 1998; Maas, van Dillen, Verheij, & Groenewegen, 2009; Sullivan, Kuo, & Depooter, 2004). From epidemiological studies based in urban settings, these relationships appear to be stronger among deprived populations (Mitchell & Popham, 2008).

Berg, Maas, Verheij, & Groenewegen, 2010) to very localised case

social uniformitism survival when everyous engagements with soun greenspaces after framed and yet life practice, and interactions between these dimensions. This article reports on preliminary findings froe eithnegraphic research in two areas of Dundee, UK. We used mobile and participatory visual method with greenspace uners in order to investigate their everyday experiences and engagements with lock greenspaces, and to understand how meanings associated with use translate (or not) into well-bein benefits. The research found that experiences of greenspace - and thus any well-being benefits produce through engagoment - are insexupably social and mediated through people's positioning in relation to particular social groups. Moreover there is not one social context or social order, but many, and hence meanings are contested. This prompts for more attention to be paid to how well-being from greenspacan be delivered in ways meaningful to different people and groups. We conclude that social relation and social health (as well as individual mental and physical health) need to be more thoroughly explored

The benefits of urban greenspace for human health and well-being have been widely asserted and are increasingly documented (Abraham, Sommerhalder, & Abel, 2010; Bell & Morse, 2008; Clark, Myron, Stansfeld, & Candy, 2007: Croucher, Myers, & Bretherton, 2007; Croucher, Myers, Jones, Ellaway, & Reck, 2007; Dutch Advisory Council, 2004; McAllister, 2005; Morris, 2003; Newton, 2007: Ward Thompson et al., 2012), Much of this literature focuses on the potential of natural environments to promote physical well-being through opportunities for physical activity, mental well-being through attention restoration, stress reduction, and

* Corresponding author. Tel.: 444 (224 (95 386. F-mail addresses for dismarabletton as als (F. Dianse). Katman brown phagnon as als (K.M. prown). Sue morn ophagnon as als (S. Morris).

social integration, social engagement and participation. The UKNEA (2011) review on the cultural goods and benefits from inter-actions with nature established that 'people's engagement with environmental settings is contingent, context specific, fluid and mutable and that in the UK the depth and breadth of engage

Much of the research effort has focused on identifying and cat aloguing the environmental characteristics of places, spaces and landscapes associated with particular health outcomes (Cattell, Dines, Gesler, & Curtis, 2008; Kearns & Gesler, 1998; Twigg & Mohan, 2009. Williams, 1999) or with the social and health inequal-ities associated with different levels of access and proximity by different social groups (Richardson & Parker, 2011; Wright Wendel. Zarper, & Mihelcic, 2012). Research also indicates that simply liv ing in proximity to urban greenspace can lead to improved health

... part of wider development of evidence base, e.g. EDPHiS

Health Inequalities

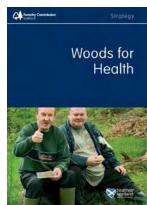


Example policy links: Strategic/Development planning, Curriculum for Excellence, Woods for Health

- Emphasis on increasing access and use of greenspace by children leading to their use as adults
- Increase access and use for different population groups (e.g. ethnic, ability, interest)
- Involvement in planning decisions, encouragement of social participation, aiding community well-being
- Plan for co-existence of multiple uses

What are the key barriers to access?





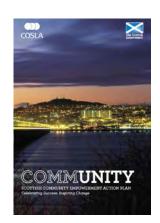


Communities



Example policy links: Community Planning, Community Empowerment, Land Reform, Land Use Strategy

- Identify mechanisms to support social use (e.g. coordination)
- Provide common purpose, sense of achievement, ownership of greenspace use, foster responsibility for local environments
 (e.g. Placemaking)



- 'Extension service' for community empowerment and engagement
- Models of ownership: 'buy-out', lease, access

Land Reform Review

Store April Type Reve Technology Committee and April Management and April 1997 (April 1997) (April 199

What are suitable forms of 'ownership'?

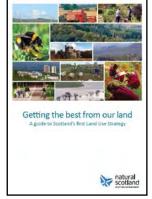
Planning & Communities

green the HEALTH

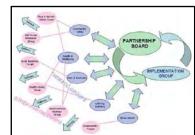
Example policy links: Land Use Strategy, Scottish Biodiversity Strategy to 2020, Community Planning

- Increase community access to different kinds of greenspace, so allowing different types of interactions
- Increase use of greenspaces for raising public awareness of nature in local environments, so help connect people to the land and effects of seasons
- Indicators for use in future Single Outcome Agreements (monitoring and reporting on greenspace access)

What are useful indicators of community access?







Multiple Functions and Services

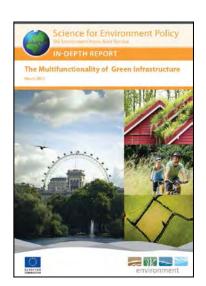


Example policy links: Land Use Strategy, Scottish Biodiversity Strategy to 2020, National Planning Framework 2

- Support mechanisms for delivery of multiple benefits from green spaces
- Integrate multiple benefits through spatial planning at micro / site scale
- Social, environmental and economic benefits from green and blue spaces as part of 'green infrastructure'
- Community recognition of trade-offs between services (e.g. disturbance, safety, habitat protection)

What are the trade-offs people make? What are the motivations?





Data



Example Policy link: Provision of environmental data (EU INSPIRE, Land Use Strategy)

- Research has generated new data (e.g. surveys)
- Substantially assisted by One Scotland Agreement e.g. enables
 Scottish Greenspace Map, Ordnance Survey
- Significantly drawn on other existing public data Scottish Health Survey, Scottish Index of Multiple Deprivation
- Capability for the research reinforces need for increasing access to environmental data - e.g. via Scotland's Environment Web

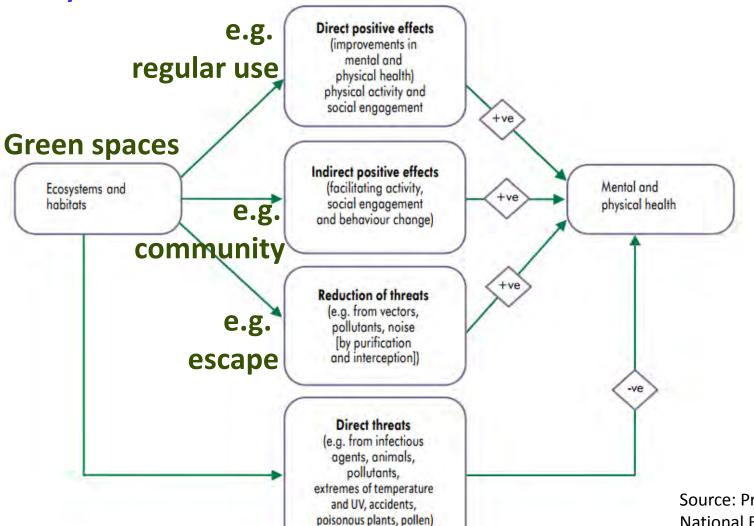


What is the next priority for data? What are the gaps in the tools?

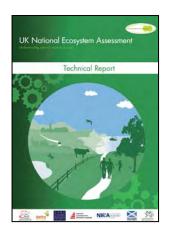
Ecosystem Services



Since 2009, greater emphasis on links within and between ecosystems







Source: Pretty et al. (2011) National Ecosystem Assessment (Ch. 23)

