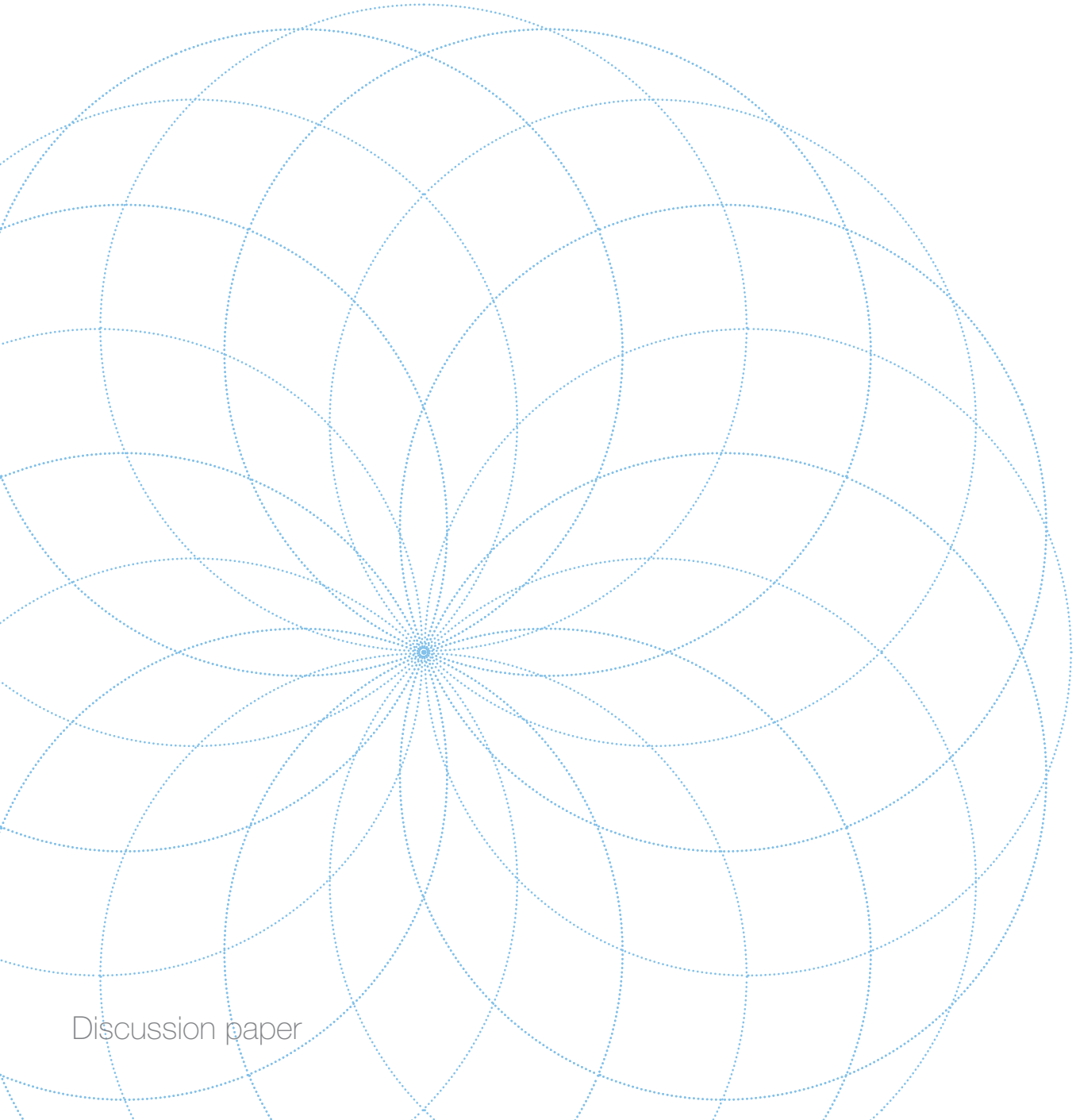
ARUP

Exploring a health-led approach to infrastructure



Discussion paper

between the two sectors.

Contents

A health-led, asset-based approach could build a shared vision and understanding of place to inform ongoing action, planning and investment.

Introduction

Infrastructure is fundamental to the resilience, health and wellbeing of communities, yet asset planning, investment and management across health & infrastructure systems is rarely well-aligned. Now a series of challenges is driving a convergence between health, wellbeing and infrastructure, opening up the potential for new approaches to cross-sector delivery.

Health and wellbeing can be a powerful catalyst and lens through which to understand people and places and evaluate outcomes. This discussion paper explores the possibility of taking a health-led approach to infrastructure. Drawing on health sector innovation in asset-based community development and the shift in infrastructure towards social value and partnership working, the paper suggests a cross-system asset framework as a focus for collaboration, planning and evaluation. The paper explores how, using this shared framework, infrastructure investments might be aligned to support health & wellbeing outcomes for communities.

Shared challenges and opportunites

A series of economic, environmental, social and political challenges is driving a new convergence between health, wellbeing and infrastructure, based around cross-sector collaboration and holistic, place-based responses.

SHIFTS WITHIN THE HEALTH & WELLBEING SECTOR

Over recent decades the health and wellbeing sector has been moving from an individual person- and treatment-focused approach to addressing the wider determinants of health, such as living environment, social and economic context, the influence of the built and natural environment, and the impact of wider ecosystem and climate[1,2,3,4]. Alternative approaches to health care, such as social and environmental prescribing[5], community asset-based development (see Page 8) and a shift from risk-based programmes to building resilience[6] are driving change. These shifts are causing a rethink of what constitutes a health asset and highlighting interdependencies with other systems.

Meanwhile, increasing pressure on resources due to the rising costs of healthcare, adult social care and children's services is forcing the health-sector to rethink how they plan and invest in health assets to deliver health and wellbeing outcomes[7]. In the UK, the move to bring public health professionals out of the National Heath Service (NHS) and into local authorities is a real opportunity, enabling stronger links and shared understanding with other departments and facilitating a move towards whole-systems approaches and partnership working[8].

SHIFTS WITHIN THE INFRASTRUCTURE SECTOR

Most client bodies, consultants, third sector providers and other groups involved in infrastructure planning and delivery find themselves with a primary set of objectives to deliver, against set timescales and budgets. They will generally need to assess various options and then build a business case to secure investment, usually against set criteria. Traditionally this has mitigated against cross-sector working and longer term-planning and investment, leading to a focus on capital delivery of core physical infrastructure assets, such as flood defences, pumping stations, roads or other built infrastructure. Whilst the importance of facilitating wider outcomes through infrastructure is increasingly acknowledged, it can be hard to deliver in practice.

However, the need to do more for less, and an increasing imperative to deliver long-term social and environmental outcomes[9] is driving innovation in the area of engagement, partnership funding and delivery[10]. It is moving the focus of infrastructure investment from physical assets to understanding dependencies on wider social and economic systems[11] This shift, in turn, is driving the need for a clear framework of understanding and evidence base for investing in place-based outcomes.

CONVERGENCE

Identifying shared challenges and opportunities

Within a complex delivery environment there are increasing areas of common ground between health, wellbeing and infrastructure

Themes driving convergence between Infrastructure and Health & Wellbeing

A health-led approach to infrastructure

A place-specific understanding of the assets that maintain and enhance community health & wellbeing can provide a valuable shared framework to inform infrastructure planning, design and investment

HEALTH & WELLBEING AS CATALYST

The health-led approach recognises that any investment in a particular place should result in supporting and improving the health & wellbeing, and resilience of the community. Exploring the factors that contribute to health and wellbeing can build a valuable framework and narrative for understanding place, creating common ground from which to facilitate cross-sector investment and community participation.

Health & wellbeing can act as both catalyst and facilitator. The health-led approach proposes that it should be the starting point for understanding how and where to invest in a place.

THE HEALTH ASSET FRAMEWORK

At the heart of the health-led approach is a shared framework of assets that support and enhance community health and wellbeing within a particular place. This becomes the key focus for collaboration, action and investment.

Such a framework must be wide-ranging, including non-physical assets (such as individual capacity and lifestyle, community functions and socio-economic factors) and the physical assets making up the built and natural environment and wider ecosystem. (See pages 8-9)

BUILDING A SHARED LANGUAGE

The framework highlights how many assets are common both across health and infrastructure sectors. It challenges both sectors to rethink what constitutes an asset and to reassess assumptions about what types of assets are investable and who might invest, either financially or in other ways. Part of the value of such a framework comes from this process, which challenges conventional boundaries and in so doing can help to build shared language and priorities across sectors and within communities.

SHARED ASSETS, SHARED OUTCOMES

The health-led approach sets out a process for maximising infrastructure investment in place-specific assets to deliver health outcomes. It does this by mapping the alignment between the objectives of a proposed infrastructure programme and priority health assets within a particular place or community. The process can also be used to identify where health assets can support the objectives of the infrastructure programme. The outcome is a shared case for investment. Some core assets will remain sector-specific - but there is an increasing number that are common across sectors. In these areas better outcomes and efficiencies might be delivered by working together.

‘ A health asset is any factor or resource which enhances the ability of individuals, communities and populations to maintain and sustain health and well-being.’

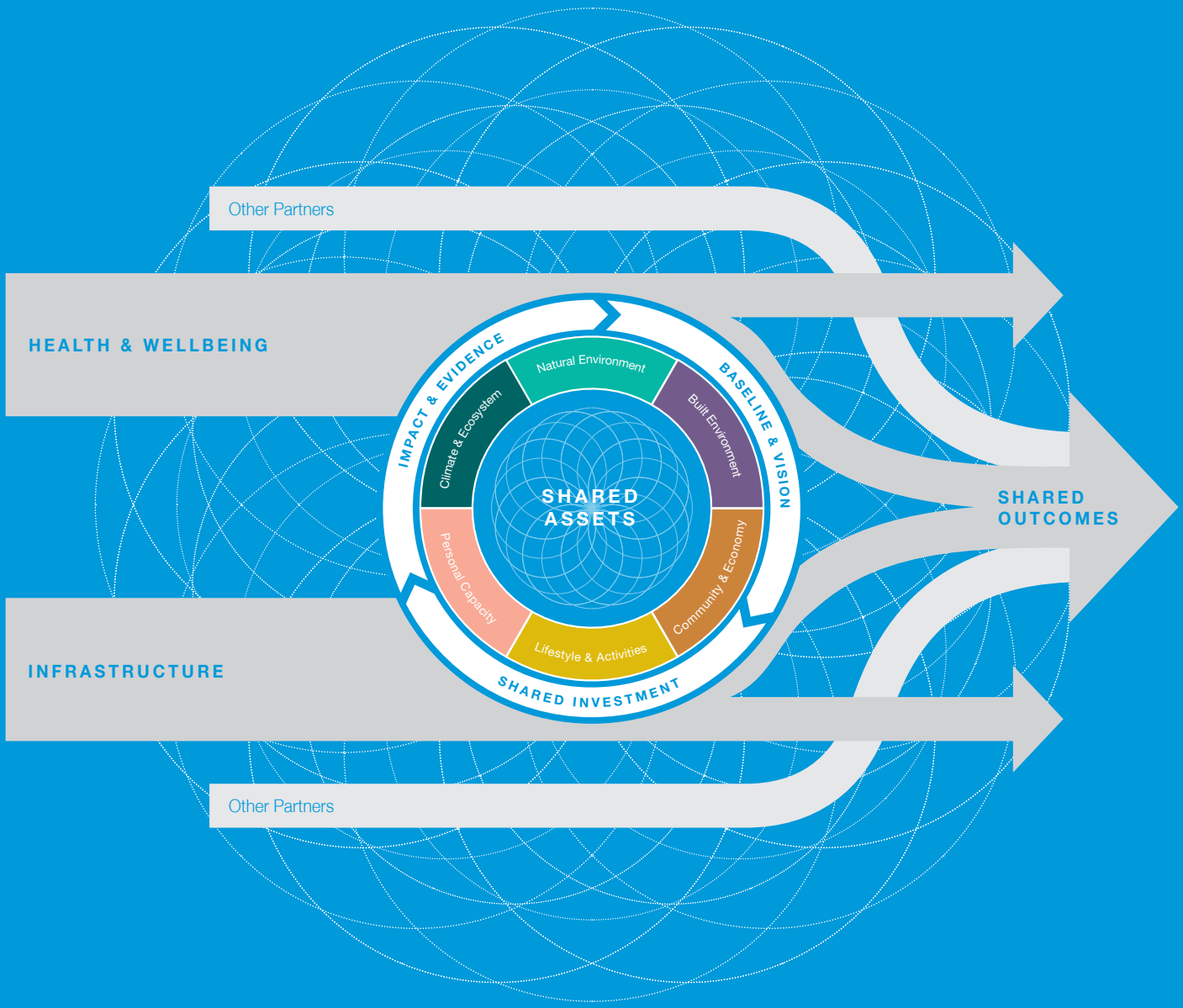
Antony Morgan, associate director, National Institute for Health and Clinical Excellence (NICE) cited in Foot and Hopkins, 2010

FIGURE 1

The Health-Led Approach

A framework of shared assets can help to build the case for cross-sector collaboration and investment.

Towards a Health-Led Approach



People and place: Developing a shared asset framework

Exploring a framework of shared assets can be a useful way to challenge perceptions and identify synergies and areas of common ground between health, infrastructure and local communities.

THE ASSET-BASED APPROACH

Since the 1970s, experts in medical sociology have been developing the theory of salutogenesis which argues the importance of focusing on peoples' resources and capacity to create health, rather than those that cause disease[12] . This recognition of the wider determinants of health was later famously illustrated by Dahlgren and Whitehead[13], Barton and Grant[14] in their health maps.

By the late 2000s, the idea of viewing a wide range of social, environmental and economic factors that support health as assets was gaining momentum. In a 2010 study commissioned by the Improvement and Development Agency, Foot and Hopkins[15] described the Asset Based Approach as a set of values and principles that build communities by mobilising the capacity and assets of people and place. In 2014, the Five Year Forward View was published signaling a shift of UK's health provision towards prevention and local democratic leadership[16], further paving the way for a community-centred, asset-based approach to public health.

CREATING AN ASSET FRAMEWORK

A review of recent studies has revealed a variety of ways to categorise health assets. These range from the simple categorisation into 'physical' and 'personal' suggested by McLean[17], through the three domains of 'personal, social and place' used by Steuer and Marks[18], to the seven categories used by O'Leary et al[19] (financial, built, social, human, natural, cultural and political). Some studies have broken down these categories, further distinguishing the different aspects of social assets using categories such as 'associations'[4] and 'narrative' [20]. Whilst not explicitly used to articulate the asset-based approach, it is interesting to note that these various categories align with the wider determinants of health set out in Barton and Grants' Health Map.

Based on a review of these different approaches, we suggest that health assets may be grouped into to six key dimensions:

- Personal capacity
- Lifestyle and activities
- Community and economy
- Built environment
- Natural environment
- Climate and ecosystem

The dimensions can be split into physical and non-physical assets. This can be useful when distinguishing, for example, between a sports club (as non-physical, social organisation) and the physical assets, such as sport pitches, that enable it to function. Within these six dimensions are further asset categories. These are indicative: the relative importance of each category, its title and the number and type of assets identified under each will be unique for different communities and it is intended that this would be explored on a local level with stakeholders. Some of the enabling factors that work across dimensions are explored on page 16.

TOWARDS A SHARED FRAMEWORK

It is clear that many of the assets within this framework cross boundaries between health and other sectors, such as infrastructure. Others are traditionally more sector-specific. Each stakeholder will come to the process from a different starting point. The value of diagram is less in the detail of the specific categories and assets - which need to be determined at local level - but in creating a starting point that encompasses all of the dimensions to facilitate discussion, challenging the conventional focus of each sector and facilitating new conversations and ways of thinking about assets. Any framework will need to be flexible to accommodate local priorities and ways of working. Various tools and facilitation methods could be used to support this (see page 16).

FIGURE 2

A Shared Asset Framework

A way of understanding place in terms of the physical and non-physical assets that underpin health & wellbeing.

Developing a Shared Asset Framework

PERSONAL CAPACITY
These are the assets describing the qualities of individuals, including education, skills, experience, passion, attitude, disposable income, sense of identity and influence on decision-making and safety and security.

LIFESTYLE AND ACTIVITIES
These are the assets describing the lifestyle and choices of individuals, including participating in an active lifestyle, healthy eating, engaging with one's own community, access to social network and support, employment and lifelong learning.

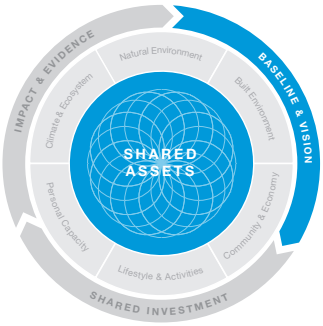
COMMUNITY AND ECONOMY
These are the assets of association - communities' capacity to provide opportunities for social and economic activities, including networks through which people come together, they include community organisations, voluntary groups and economic assets such as employment and local businesses.

BUILT ENVIRONMENT
These are built physical assets that enable our communities to function and support a sense of place and community, including social, water, energy, transport, public health, and digital infrastructure, as well as historic and cultural buildings and monuments.

NATURAL ENVIRONMENT
These are natural physical assets that provide opportunities for recreation, relaxation, and connecting with nature and people, including parks, community gardens, allotments, accessible waterways, woodland, nature reserves and other biodiversity sites.

CLIMATE AND ECOSYSTEM
These are the fundamental protective factors that underpin and support the environment we live in and impact on wider context such as climate adaption and mitigation, ambient air quality, water quality, soil quality, biodiversity and micro climate.

Understanding health & wellbeing outcomes and supporting assets



An asset-based approach to community development focuses on the strengths of individuals communities and places, building on the assets that underpin their health & wellbeing. This process can create a shared understanding of place that is invaluable to communities and can also support strategic planning and investment at a number of scales.

UNDERSTANDING THE HEALTH NEEDS OF COMMUNITIES

The asset approach does not replace investment in improving services or tackling the structural causes of health inequality. Conversely, it should complement health service and other sector delivery through community building and help reduce demand in the long term. To achieve this, understanding place-specific health profiles, desired outcomes and the assets that support these is critical.

Making health and wellbeing asset information accessible to other sectors has been identified as a key priority in facilitating cross-sector working between public health and other sectors such as planning, housing and infrastructure delivery[9,21,22]. There are several nationally available sources for understanding the health profile and desired outcomes for local areas. Public Health England (PHE)'s Fingertips Tool and, more specifically, the Health Asset Profile[23] provide access to a wide range of health and wellbeing related data at local authority level.

ASSET MAPPING

As a result of the traditional 'deficits' focused approach[24], data is generally lacking for health assets such as wealth of experience, practical skills, social networks and non-primary care related physical assets. To overcome this, some local authorities, organisations and communities are using asset mapping methods to capture health assets at local level and prioritise asset investment.

For instance, in 2015, NHS Wakefield District and Wakefield Council's joint Public Health Unit piloted an asset and co-production approach to asset mapping as part of the programme reviewing their Joint Strategic Needs Assessment (JSNA)[25] .

At national level, there isn't a consistent framework to understand health assets to the same degree of detail. The PHE's recent Health Asset Profile provides some consistent, baselines that can be benchmarked. Whilst a good starting point, it sometimes lacks the level of detail required to meaningfully inform infrastructure design and investment.

'As well as having needs and problems, our most marginalised communities also have social, cultural and material assets. Identifying and mobilising these can help them overcome the health challenges they face.'

Foot and Hopkins, 2010

Understanding the health baseline and prioritising assets

NATIONAL LEVEL

Whilst there is an absence of a consistent framework to understand health assets at national level, sources such as the PHE's Fingertips Tool, Health Asset Profile and other open-source data can provide a good starting point for mapping health and wellbeing assets and indicators. Detailed public health data is not typically available to infrastructure providers and planners in easily accessible, useable formats, such a GIS Potential sources include:

- Open-source data such as IMDs and spatial asset data
- PHE Fingertips tool, SHAPE tool and Health Asset Profiles

LOCAL AUTHORITY LEVEL

The health asset data held at local authority level varies geographically, typically remains at district or ward level, and is usually not open source. Some local authorities have carried out more detailed asset mapping activities using public health intelligence working with local communities through a co-production process. Potential sources include:

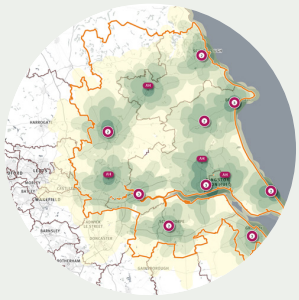
- Joint Strategic Needs Assessments and Health & Wellbeing Strategies
- Local Authority public health intelligence data & insight
- PHE Tools and Health Asset Profiles
- Community-based asset mapping (see below)

COMMUNITY LEVEL

Detailed sub-ward level information is less common. Communities often lack detailed, accessible available data about their area. Some local authorities and community groups have mapped health assets with the aim to raise awareness, build capacity and mobilise new resources. However, these data are not yet widely accessible and the extent of mapping activities is not well understood. Potential sources include:

- Open data and crowd-sourced data
- Community-level health asset mapping
- Neighbourhood plans and other community forums

Case Studies



PUBLIC HEALTH ENGLAND ASSET MAPPING TOOLS[23]

Supporting a place-based understanding of health assets and outcomes

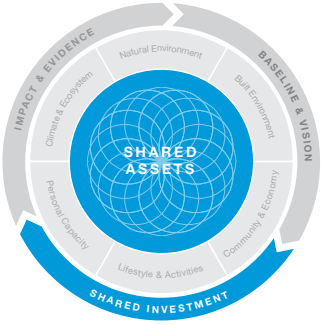
The Strategic Health Asset Planning and Evaluation (SHAPE) tool is a web-based application developed by Public Health England (PHE) to support the strategic planning of services and assets across the health economy. SHAPE contains health datasets and indicators covering a range of topics including hospital activity, Joint Strategic Needs Assessment (JSNA), public health, primary care, programme budgeting, demography and service configuration. In its early development, SHAPE primarily provided data on health needs and primary care provisions. Now, the tool has evolved to cover a much wider range of health assets, such as green space and other scoial infrastrucutre. It also offers a platform for customising the visualisation of health assets at community level. For example, the data captured through the Wakefield community asset mapping project, delivered by NHS Wakefield District and Wakefield Council, was mapped in SHAPE and categorised using the Five Ways to Wellbeing developed by the New Economics Foundation[26].

LEEDS COMMUNITY RESILIENCE INDEX & HEALTH ASSET MAPPING

Community-scale health asset mapping to inform planning and investment

In early 2016, Leeds City Council's Adult Social Care (ASC) team approached the Corporate Intelligence Team to develop a Community Resilience Index (CRI), focusing particularly on elderly and vulnerable citizens. The ASC team wanted to understand the resilience of neighborhoods across Leeds, to enable them to identify which assets and factors are most critical, enabling them to prioritise investments and services. The aim of the CRI is to develop detailed local evidence. Whilst it is still in development the emerging CRI provides baseline evidence of potential shared assets and investments to other departments - such as planning, transport or flood risk management. The work shows that such insight could play a key role in enabling cross-sector planning and investment in Leeds. Alongside the CRI, the public health inteligence and communities teams are undertaking community-based asset mapping, working with PHE. This work could provide a valuable place-based health baseline to inform infrastructure investment.

Aligning infrastructure assets and prioritising investment



Building on the baseline health asset mapping, the health-led approach provides the opportunity to broaden the definition of infrastructure assets and map alignments to provide evidence for shared investment

HEALTH ASSETS INFORMING INFRASTRUCTURE DELIVERY

There is increasing need within the infrastructure sector for a clear framework of understanding and evidence base for investing in place-based outcomes. An understanding of priority health and wellbeing assets could provide an invaluable baseline and shared framework to inform and identify where a particular infrastructure investment may deliver most impact and where shared funding and delivery opportunities may emerge.

Having identified which assets are most critical for underpinning priority health & wellbeing outcomes within a particular place, the next step is to map the potential infrastructure investment and map alignment. Ideally this process is based on in-depth local understanding, but it could be undertaken at various scales - from regional, district or organisational level down to community-level - depending on the scale of the infrastructure project and the availability of supporting information within a particular context. The process can deepen the shared understanding and narrative around a particular place, helping to attract future investments and opportunities and bring in other partners.

MAPPING ALIGNMENT AND PRIORITISING INVESTMENTS

The process may identify some health assets that can be directly delivered or enhanced through the infrastructure project, such as supporting woodland planting as part of a natural flood management programme, or enhancing connectivity as part of transport investment. In other areas, partial or 'seed' funding may be possible working in partnership with communities or other programmes to deliver further investment. These assets can be mapped and prioritised to inform the infrastructure programme.

Dependencies between assets can also be mapped to identify gaps and focus investment to maximise impact or unlock a particular opportunity. For example, the impact of a green infrastructure asset delivered through an infrastructure programme might be increased by parallel investment in a social prescribing service or community group. It is inevitable that not all of the priority health-assets will align with what the infrastructure project can deliver. However, in these areas the process of exploring a shared asset framework will provide important evidence as to why particular investments have been prioritised and where further investment is needed.

'Copenhagen saw a $12m saving in healthcare costs as a result of 10% more cycling, leading to increased productivity of $31m and an extra 61,000 years of life."."

Juniper (2013)

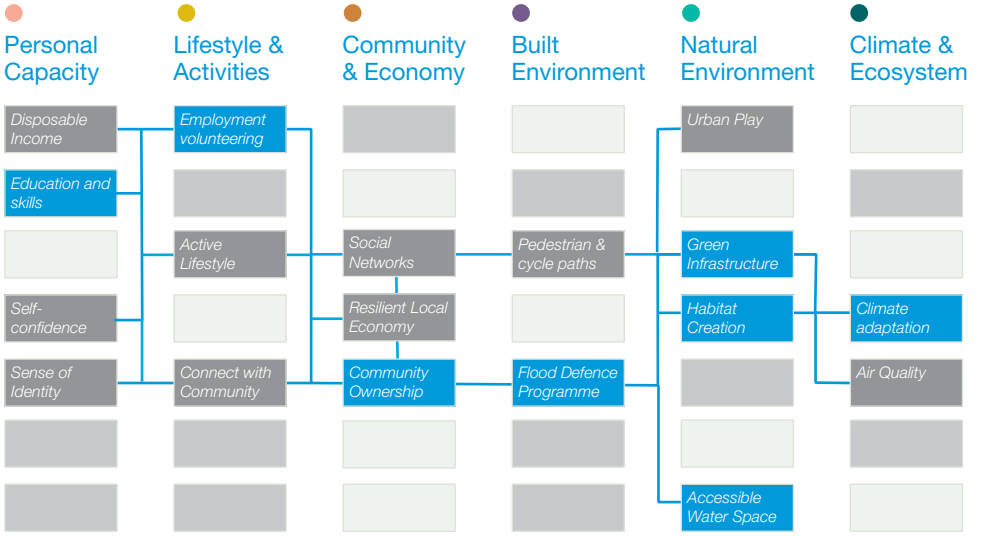
FIGURE 3

Mapping prioritised health assets against infrastructure investment

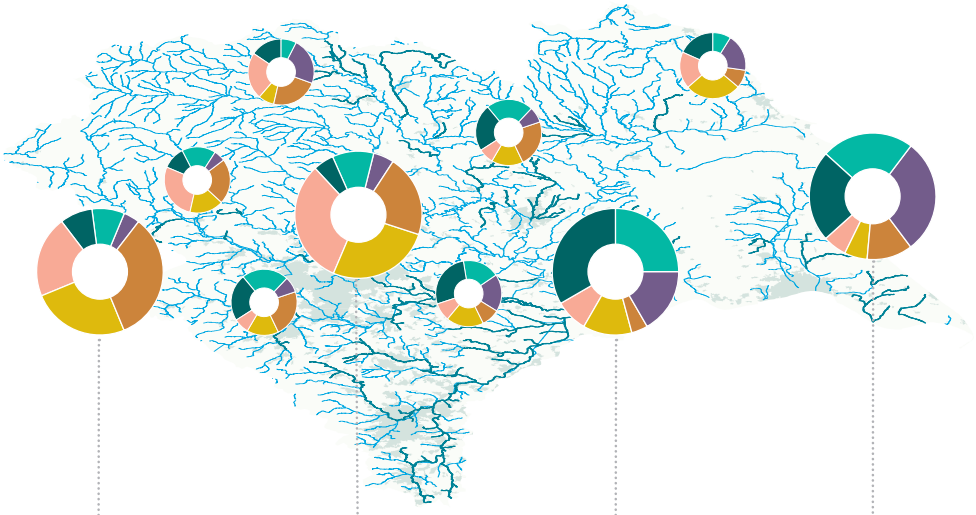
Asset	Health and wellbeing assets. During the baseline these are reviewed and prioritised
Asset	Health assets prioritised during baseline based on place-specific needs/outcomes.
Asset	Assets with partial alignment with infrastructure investment - potential partnership delivery
Asset	Assets with strong alignment with infrastructure investment - potential direct delivery
	Mapping dependencies and impact pathways to ensure outcomes
	Informing place-specific understanding of priority assets and projects (See also Figure 4)

Alignment, dependencies and priority projects

MAPPING ALIGNMENT AND DEPENDENCIES BETWEEN PRIORITY HEALTH ASSETS AND INFRASTRUCTURE INVESTMENT

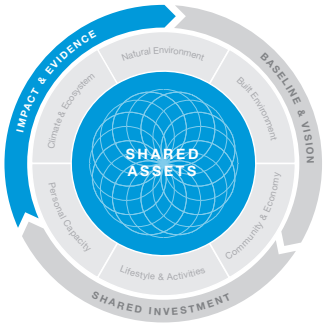


CREATING A PLACE-SPECIFIC UNDERSTANDING OF THE POTENTIAL FOR INFRASTRUCTURE INVESTMENT TO SUPPORT THE CREATION AND ENHANCEMENT OF HEALTH ASSETS



IDENTIFYING PRIORITY PROJECTS TO DELIVER MAXIMUM IMPACT AND RETURN ON INVESTMENT

Demonstrating impact and building evidence



Mapping and communicating the alignment of infrastructure schemes to place-specific health outcomes has the potential to shape investment to maximise added benefits. The process can also add value through building a live, shared understanding of a particular place to inform ongoing action, planning and investment.

EVIDENCE-BASED INFRASTRUCTURE INVESTMENT

The health-led approach champions evidence-based investment. Through understanding the specific needs of local communities and mapping health assets, infrastructure schemes can develop tailored design to maximise alignment to the specific asset needs of communities; they can also generate a clearer understanding and evidence of how specific health outcomes may be supported.

For example, tackling obesity in a community with strong 'active lifestyle' and 'social networks' assets, may build on this capacity with a focus on safe active transport routes or connected green infrastructure to support more walking and cycling. By contrast, another community may have good quality but under-utilised acive travel networks. Tackling obesity within this community may focus instead on non-physical assets that impact healthy lifestyle choices such as social networks and support, or investment in the local economy and skills to support employment, generating a positive impact on income and personal capacity.

COMMUNITY ENGAGEMENT

Community asset mapping should be an integral part of the health-led approach in understanding existing health assets and outcome priorities. Similarly, communities should be engaged throughout the planning and design process and following the delivery of infrastructure schemes to help evaluate the impact.

VISUALISING THE IMPACT: A SHARED UNDERSTANDING OF PLACE

Various techniques could be used to map priority investments against the baseline for a particular community and to record and visualise impact, These could include diagrams (Figure 4), use of spatial data and mapping, gathering stories, interviews, and a range of other tools. Such a process could provide additional long-term value by creating a live, shared understanding of a particular place, allowing communities, stakeholders, planners and infrastructure providers to attract and prioritise new investment opportunities as they arise.

'Every £1 spent on health volunteering programmes returns between £4 and £10, shared between service users, volunteers and the wider community, [whilst] British Red Cross volunteers have been shown to generate cost-savings equivalent to three-and-a-half times their costs'

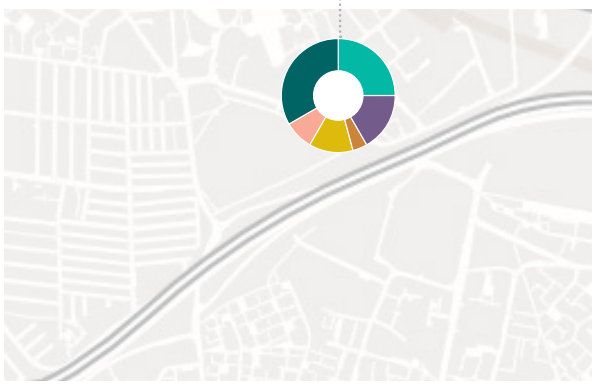
From Buck and Gregory (2013)

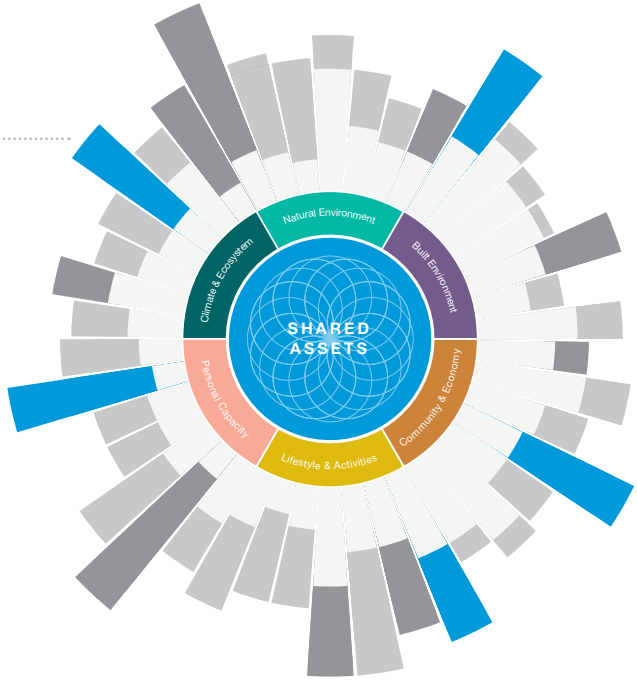
FIGURE 4

Mapping prioritised health assets and infrastructure investment

Visualising a place-specific understanding of priority assets, potential investments and future objectives. Such tools could incude interactive on-line interfaces to plan investments and gather evidence and multiple stakeholder views. Such tools could be used to support each stage of the process, from establishing a baseline analysis and vision, to monitoring investments and impact.
(See also Figure 5)

Understanding and visualising the impact





Case Studies

BORN IN BRADFORD: HEALTH & WELLBEING COHORT STUDY[27]

Applied research to improve the health and wellbeing of families

The Born in Bradford project is tracking the lives of over 30,000 Bradfordians to find out what influences the health and wellbeing of families. This study uses its findings to develop new and practical ways to work with families and professionals to improve the health and wellbeing of communities. The project is developing further in partnership with the Better Start Bradford programme, including a Better Place workstream that is focused on implementing projects that improve place, with a focus on increased access to nature. Closer links between this kind of research and the work of planners, designers and infrastructure delivery organisations can provide a vital evidence base to inform various stages of a health-led approach, from understanding priority health outcomes and supporting assets, to prioritising investments and providing ongoing monitoring and evaluation of implemented projects.

NATIONAL COHORT STUDY ON FLOODING AND MENTAL HEALTH

Applied research providing important evidence to inform future planning

In January 2015, Public Health England (PHE) started a study to understand better how flooding affects mental health. The research looked at the extent to which those affected by flooding suffer from anxiety, depression and post-traumatic stress disorder (PTSD). The research has found that those who were displaced had a higher occurrence of mental health conditions than those who were flooded but remained in their homes. Analysis of flood warning and health data suggests that flood warnings are linked to lower rates of anxiety, depression and PTSD. This kind of research provides vital evidence to inform infrastructure delivery. The ongoing cohort study is being used to inform Environment Agency research into how the health and wellbeing effects of flooding can be taken into consideration during project appraisal and business case development. See Waite et al (2017) for references and links.

Testing the approach

As part of their exploration of a health-led approach to infrastructure, Arup ran a collaborative workshop with a wide range of attendees including infrastructure, planning, public health, environmental economics, youth services, academia, arts & culture and community development.

WORKSHOP FOCUS

The workshop focussed on one particular infrastructure sector - flood risk and resilience - to identify transferable principles. Speakers provided valuable insights from public health, flood infrastructure and community development sectors. Group sessions, based around various scenarios, were designed to test the concept of a health-led approach to infrastructure and provoke discussion.

RETHINKING ASSETS AND TESTING SCENARIOS

Groups were asked to review the health asset framework, which had been populated with a series of example assets under each of the dimensions. Then, simulating the process illustrated in Figure 3 (Page 13), each group was given a particualar community context, health outcome and flood risk investment scenario and was asked to map the strength of alignment between the potential infrastructure investment and the prioritised health assets.

CROSS-SECTOR COLLABOARATION

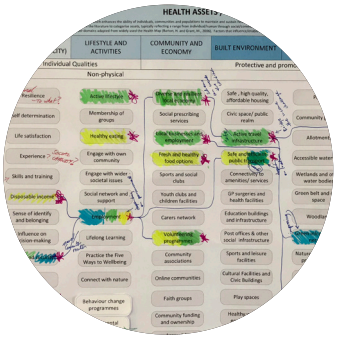
It was clear that the presence of both public health and infrastructure sectors changed the conversation by broadening it out across all of the dimensions and focussing on different assets than might be conventionally considered by each sector. A typical conversation around delivering wider benefits linked to flood storage infrastructure might tend to focus primarily on physical assets - built and natural environment opportunities such as high-quality design and materials, creation of public space and amenities, green infrastructure, improving connectivity and so on. Although health impacts or other social and economic outcomes are increasingly discussed within the infrastructure sector, they are not typically framed in terms of a structured asset management approach.

DEVELOPING NEW INSIGHTS

There was an acknowledgement that the insights of participants from health & wellbeing and other non-infrastructure sectors placed valuable focus on the importance of non-physical assets such as employment, social networks and personal capacity, highlighting the role that infrastructure projects may play in building capacity in these areas. Similar insights could be gained by the health sector when looking in more detail at built, natural and wider ecosystem assets, learning from the way that the infrastructure sector invests in and manages assets within this area.

FLEXIBILITY

It was evident that any framework or process should remain flexible enough to accommodate the needs of specific projects, stakeholders and communities, including different information types and ways of working.



EXLORING THE APPROACH

Collaboratinve Workshop

Discussing and testing infrastruture investment scenarios based around a provisional health asset framework.

'Things that need to change'

Workshop participants were asked to reflect on the things that need to change in order to bring about a cross-sector, health-led approach to infrastructure investment. Some of the key points are summarised below.

Thinking more holistically about infrastructure, health & wellbeing and community
Bringing decisions around investment closer to the point of impact
Facilitating collective vision and agreement on health & wellbeing drivers and outcomes
Engaging wide a range of partners and the community at an early stage of the process
Availability and communication of data and insight in accessible format and at the correct scale

Exploring barriers and Enablers

In the final session workshop participants explored some of the barriers and enablers to delivering a health-led approach to infrastructure. These were explored across four suggested areas, each of which works across all dimensions within the shared asset framework (see Page 9).

LEADERSHIP & GOVERNANCE

Facilitating agreed outcomes around people, health & wellbeing
Systems thinking - linking outcomes across sectors
Facilitating partnerships and innovation
Building community/leadership champions
Changing governance structure e.g. devolution, linking sectors

POLICY & REGULATION

Influencing project appraisal guidance
Place-based opportunity mapping and innovation
Widening the understanding of the impact of public health
Ensuring outcome measures align with cross sector thinking
Extending health and wellbeing across all policy areas

FUNDING & DELIVERY

Review current cost-benefit and appraisal criteria
Better evidence to inform infrastructure investment
Different delivery models - role of private sector and communities
Challenge of separate budgets and delivery timescales
Review procurement policy barriers e.g. use of local employment

DATA & INSIGHT

Data protection act and personal data challenges
Easily available place-based data across all sectors
Open data and digital community facilitation tools
Trialling the health-0ed approach through pilot projects
Live, and up to date local knowledge

Application & Next Steps

POTENTIAL APPLICATION

The health-led approach to infrastructure could be applied at a number of different levels of detail and across different scales and types of project. As discussed in this report, the ideal would be to base infrastructure project planning and design on in-depth community-level understanding of health assets and outcomes.

Whilst strategic planning and policy would ideally be informed by a similarly detailed understanding of place, data may not yet exist in an appropriate format to make this possible. Current developments in data gathering, analysis and communication make this a possibility in the near future - in the meantime the broad principles of a health-led approach and shared asset framework could still be usefully applied to set programme-level objectives, to inform strategy or policy, or indeed to support data gathering and asset mapping work.

A range of physical and digital tools could be developed to facilitate a move towards the health-led approach (Figure 5). It will be important to find the right level of analysis for each specific case and ensure any process is sufficiently flexible to accommodate different ways of working, whether this be a project team, an organisation, a city authority, or a community group.

NEXT STEPS

Some recommended next steps include further collaborative research projects to:

- Identify opportunities to trial, further test and develop the approach across various geographies and for different scales and types of investment programme
- Consider developing a set of flexible facilitation tools to explore and test the shared asset framework, set priorities and map alignment with infrastructure investment.
- Undertake further work to understand the barriers and enablers associated with delivery of a health-led approach
- Develop further metrics and evidence to support project appraisal and business case development for different infrastructure programmes and across the various asset types.
- Consider developing a digital 'dashboard' to support planning, implementation, monitoring and evidence, potentially building on existing platforms such as the PHE SHAPE Tool
- Continuing to develop detailed insight into the links between water, flood risk and health & wellbeing that have developed through this project and extend this research into other infrastructure sectors.

FIGURE 5
Potential use cases and facilitation tools

Facilitating a health-led approach

A range of physical and on-line facilitation tools could be developed to support a cross-sector health-led approach for different types of planning and investment across a range of scales.

POLICY
This approach could help national and regional bodies and local authorities bring health considerations into all areas of policy making, develop strategic plans to target health outcomes, and deliver tailored approaches to build upon the strength of individual communities.

STRATEGY
Organisations, such as large infrastructure providers or health-sector partnerships, could use this approach to understand their impact on the health & wellbeing of local communities to inform management and investment decisions, creating positive impact in the communities within they operate.

PROJECT
The health-led approach could maximise added social value through project design, optioneering and delivery. It can Identify aligned assets between health sector and infrastructure investment, and achieve wider health benefits through direct investment and partnership working.

COMMUNITY
The health-led approach can be used to facilitate co-production of health asset mapping and priority setting with local communities, a process which can generate valuable baseline data to understand the strength of communities and support a place-based approach to public health.

Notes and References

NOTES

1 Dahlgren and Whitehead (2007).

2 Barton and Grant (2006).

3 See the PHE Wider determinants of Health Tool, available at https://fingertips.phe.org.uk/profile/wider-determinants

4 Marmot et al (2010)

5 Langford, Baeck and Hampson (2013)]

6 Foot (2012), P9

7 This issue was highlighted by Barnet Council in 2011 with what became famously known as the 'Barnet Graph of Doom' see https://www.theguardian.com/society/2012/may/15/graph-doom-social-care-services-barnet

8 Local Government Association (2016)

9 HM Government (2016) - the Social Value Act requires commissioners of public services to think about how they can also secure wider social, economic and environmental benefits. See also UK Green Building Council (2018) and Supply Chain School (2018) for guidance and case studies of projects integrating Social Value through development and infrastrcuture delivery.

10 Add reference for partnership funding and delivery in infrastructure

11 Add reference for investment in resilience and wider social and environmental systems

12 Lindstrom and Eriksson (2005)]

13 Dahlgren and Whitehead (2007)

14 Barton and Grant (2006) pp252-261.

15 Foot and Hopkins (2010).

16 NHS (2014)]

17 McLean (2012)

18 Steuer and Marks (2008)]

19 O'Leary et al (2011)]

20 Lynch (2010)]

21 TCPA (2018) See also the extensive TCPA Reuniting Health with Planning work at https://www.tcpa.org.uk/Pages/Category/health including guidance and best practice on integration of Health with Planning

22 PHE (2017)

23 PHE Fingertips Tool. https://fingertips.phe.org.uk/ and more specifically the Health Asset Profies https://fingertips.phe.org.uk/profile/comm-assets See also SHAPE Asset Planning Tool https://shape.phe.org.uk/

24 Foot (2012)]

25 See https://www.thinklocalactpersonal.org.uk/co-production-in-commissioning-tool/stories-and-resources/Asset-Mapping/ [accessed May 2018]

26 Aked et al (2008)

27 Go to https://borninbradford.nhs.uk

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