There is increasing recognition that community assets and social networks have a major influence on individual and population health. Globally, populations are living longer but unhealthier lifestyles are resulting in greater numbers of individuals with diseases such as dementia and diabetes, all of which places considerable pressure on health and social care services. It is also widely acknowledged that there is a social gradient to health, whereby individuals from poorer socio-economic backgrounds experience reduced health, wellbeing and social resilience.

This chapter focuses on the social role of museums and seeks to reposition museums as vital community assets supporting public health and community cohesion. The notion of community assets focuses on positive benefits as a mechanism for solving individual and community challenges, rather than the deficit model underpinning modern health and social care systems. Such community-based assets include the physical, environmental and economic resources within a community, such as museums, public parks and open spaces, as well as voluntary and third sector organisations. Social prescribing is gaining considerable traction as a route to providing access to community assets to address specific physical and mental health issues, with a significant rise in a wide range of ‘on prescription’ programmes including: exercise, arts, museums, books, education, food and time banking, and green gyms. This chapter will focus on evaluating the commonalities and distinctions between social prescribing programmes, with a specific focus on cultural (museums) and natural
(parks, natural environments, gardens) referral pathways. Drawing on case studies involving cultural activities and nature-based interventions, this chapter explores the overlap and synergies between natural and cultural capital in public health.

Introduction

There is a wide body of evidence demonstrating the positive impact of arts and culture on health and wellbeing, with research showing that arts and cultural participation impacts upon biological, psychological, social and behavioural aspects of health, across the lifespan. Population level studies have shown that people who engage in arts and cultural activities have a lower risk of dying prematurely and are significantly healthier. In England it is estimated that the arts, museums and heritage sites save the NHS around £700 million per year through reducing GP visits and use of mental health services. There is also evidence that leading an active, socially-engaged lifestyle might protect against cognitive decline. In a recent study the arts have been proposed as potentially beneficial activities due to their combination of cognitive complexity and mental creativity. Using data from over 3000 participants drawn from the English Longitudinal Study of Ageing, the study explored the association between three types of cultural engagement (visiting museums, going to musical or theatrical performances and going to the cinema) and change in cognitive function over 10 years, amongst adults over 52 years of age. The authors measured memory and semantic, or verbal fluency at baseline and follow-up, and found that visiting museums and going to performances were associated with a lesser decline in cognitive function, compared to going to the cinema. The results were shown to be independent of demographic, health and social confounders, providing robust evidence that regular engagement in creative, cultural activities not only affords protection against cognitive decline but enhances cognitive functioning.
The Creative Health Inquiry Report cites over 1000 peer-reviewed studies and grey literature evaluations outlining the depth and breadth of the ‘arts and health’ landscape, including specific sections on museums. In tandem, there is a growing evidence base demonstrating the social value of museums\textsuperscript{11} and the role that museums play in improving health and wellbeing.\textsuperscript{12} Research which draws on a range of museum programmes, research projects and grey literature, shows that engaging in museums provides a number of benefits including:

- positive social experiences, leading to reduced social isolation
- opportunities for learning and acquiring new skills
- calming experiences, leading to decreased anxiety; increased positive emotions, such as optimism, hope and enjoyment
- increased self-esteem and sense of identity; increased inspiration and opportunities for meaning-making
- positive distraction from clinical environments, including hospitals and care homes
- increased communication between families, carers and health professionals

Given the wide range of benefits it is not surprising that more and more museums are adapting their access programmes to consider the wider social, health and wellbeing benefits that museum encounters can elicit. Such programmes are aligned with the increasing recognition that there are many associations between ageing and social isolation, loneliness, physical and mental ill-health\textsuperscript{13}, and that in order to tackle these complex public health challenges a more inclusive, multidimensional and person-centred approach is required.\textsuperscript{14} Given the aforementioned benefits of museum engagement, it is apparent that there are many opportunities (and challenges) for museums to be re-valued in terms of their social, community and public health offer; one of the biggest challenges facing the museums sector is understanding how best to meet these needs.
Many arts and other community–based organisations have developed more formalised relationships with health and social care providers, offering schemes described as 'social prescribing'. Social prescribing is a term used to describe the process whereby healthcare professionals refer patients to non-clinical sources of support in the community to improve their health and wellbeing. Social prescribing includes referrals to support health behaviour changes, especially for long-term conditions, schemes to develop community cohesion, or address the social determinants of health by providing support for welfare, debt advice, housing and employment. Well known models include:

- Arts, books, education and exercise on Prescription
- Green Gyms
- Healthy Living Initiatives
- Information Prescriptions
- Supported Referral
- Social Enterprise Schemes
- Time Banks

Social prescribing has developed as a strategy for tackling health inequities through partnerships between health, social care and third sector organisations, and provides a conduit for individuals to access community-based assets to support their health and wellbeing. According to NHS England, nearly half of all clinical commissioning groups in England are investing in social prescribing programmes, and one in five GPs regularly use social prescribing, whilst a further 40 per cent would refer if they had more information about available services. The General Practice Forward View lists social prescribing as one of the ten high-impact actions and has identified social prescribing as a valuable mechanism for supporting personalised care and for managing the demand on their services. Friedli et al showed that social prescribing is especially helpful for vulnerable groups including: recently
bereaved older adults; those with chronic physical illness; mild to moderate depression and anxiety; enduring mental health problems; and frequent attenders in primary care.\textsuperscript{18}

As core community assets museums are well-placed to offer public health interventions in the form of activities and programmes that are community-led, person-centred, low-cost and nonclinical; but museums are relative newcomers to the social prescribing scene. Several museums have piloted prescription schemes, with the first of its kind at Tate Britain (Art-based Information Prescription\textsuperscript{19}); others projects have included the Beaney House of Art & Knowledge, Canterbury (Paper Apothecary, 2013); the Cinema Museum, London (Cinema Museum Prescriptions, 2014); the Holburne Museum, Bath (Recollection, 2014); and Oxford University Museums (Memory Lane Prescription for Reminiscence, 2015). This chapter will draw upon a recent three-year research project that developed a ‘Museums on Prescription’ scheme with partner museums across London and Kent; findings from this research, along with research and evaluation from the wider social prescribing sector, will be used to advocate that museums be revalued – and re-evaluated – as public health assets.

**Museums as Public Health assets**

Foot and Hopkins argue that as well as having needs and problems, those members of the community who are marginalised also have social, cultural and material assets, and identifying and mobilising these can help to overcome specific health challenges, build resilience and social capital. As community resources, I argue that museums are well-positioned to meet these needs by promoting creative, cognitive and physical activity, and in so doing promote individual and societal wellbeing.

The Marmot Review articulated the principles of a fair society, linking them to the challenge of addressing health inequalities which, it is suggested, have resulted in a social
gradient in health. In short, the lower a person’s socio-economic status the worse that person’s health is likely to be. The review states that given health inequalities are driven by underlying social factors, including where people are born, grow, live, work and age, actions needed to alleviate health inequalities must tackle a range of social factors. Furthermore, the review suggested that due to the growing demands on health and social care, these services are insufficient to reduce health inequalities and that a wider range of organisations and actions are needed to tackle the social determinants of health, including community assets. Chatterjee and Noble argue that museums can be viewed as a conduit for individual and community assets, with cultural encounters, including many museum programmes and activities, acting as vehicles which can lead to direct improvements in health and well-being. Friedli advocates interventions that sustain resilience including those that: strengthen social relationships and opportunities for community connection for individuals and families, especially those in greatest need; build and enable social support, social networks and social capital within and between communities; strengthen and/or repair relationships between communities and health and social care agencies; and improve the quality of the social relationships of care between individuals and professionals. Viewing cultural encounters and museums through an assets-lens affords an opportunity to advocate for the importance and value of museums as essential community resources, providing a space where meaningful, creative and socially-engaging activities can support community cohesion and inclusion; thus supporting many, if not all, of Friedli’s resilience-based recommendations.

**Museums on Prescription**

Social prescribing is the mechanism by which community assets can be formally incorporated into health and social care pathways. Whilst there isn’t a ‘one model fits all’ approach to social prescribing there is increasing recognition of the need to develop a framework for
implementing and evaluating social prescribing interventions, programmes and activities. The National Social Prescribing Network has published an accessible guide to social prescribing, and attempt to explain what it is, what different models look like, as well as detail referral mechanisms, governance and risk management, and much else.\textsuperscript{20} Thomson et al\textsuperscript{21} and Chatterjee et al\textsuperscript{22} provide reviews of social prescribing and outline pathways to implementation, including referral mechanisms; these studies highlight the diverse but somewhat fragmentary evidence base and advocate for the importance of developing robust evidence that is meaningful for both referrers and practitioners.

Whilst the scope of social prescribing encompasses arts, reading, exercise, nature and information-based programmes, museums have not typically been part of this practice; this could be because a key focus for museums over the past 20 years has been on education and inclusion, rather than specifically health. In light of this gap and with a view to evidencing the potential of museums to operate within the social prescribing spectrum, a three year Museums on Prescription programme was developed across London and Kent from 2014-17.\textsuperscript{23} Funded by the Arts and Humanities Research Council the project explored the value of museum-based social prescribing programmes for lonely older adults at risk of social isolation. The project was developed in response to government statistics about a significant public health problem regarding social isolation and loneliness in older adults. The Office for National Statistics 2015 report into loneliness found that amongst older people, rates of chronic loneliness have remained steady since the 1940s, with 6-13\% of people over the age of 65 reporting they feel lonely all or most of the time.\textsuperscript{24} Furthermore, social isolation in older adults has been linked with a range of physical and mental health problems including depression, and recent studies have shown it can lead to early death.\textsuperscript{22}

The award winning project, led by University College London and Canterbury Christ Church University, established novel programmes of museum-based, creative activities for
lonely, older adults aged 65-94 at risk of social isolation, who were identified and referred by a range of NHS and Local Authority social and psychological services, local third sector and/or community organisations. Partner museums (The British Museum; The British Postal Museum; Canterbury Museums and Galleries; Central Saint Martin’s Study Collection; Maidstone Museum and Gallery; Tunbridge Wells Museums and Gallery; UCL Museums & Collections) carried out weekly programmes of museums-based activities lasting one to two hours across 10 weeks, attended by over 100 participants in groups of around 8-10 older adults. Sessions were led by museum staff and included curator talks, behind-the-scenes tours, museum object handling, and creative and co-productive activities inspired by the collections involving writing, drawing, print-making, weaving, and designing exhibitions, booklets and guides.

Measures of psychological wellbeing (UCL Museums Wellbeing Measure), mental wellbeing (Warwick Edinburgh Mental Wellbeing Scale) and social isolation (Revised UCLA Loneliness Scale) were taken at baseline (Week 1), mid- (Week 5) and end-programme (Week 10), and follow-up interviews with short versions of the measures (Short Warwick Edinburgh Mental Wellbeing Scale and 3-Item Loneliness Scale) were implemented at three and six months. In-depth interviews were conducted at the end of ten weeks with participants, facilitators and carers who also filled in weekly diaries, called Museum Passports, reflecting upon their experiences. Partners and participants also attended workshops every six months to share experiences, discuss research findings and help develop best practice guidance.

Quantitative analysis of the measures found significant improvements in psychological wellbeing that were sustained beyond the end of the programme. Qualitative analysis revealed a sense of belonging, improved quality of life, renewed interest in learning, increased creativity and social activity, and continued visits to museums. In addition, the museums, health, social care and third sector partners also reported benefits; for referrers the
Museums on Prescription drew upon key policy reports to develop an understanding of health improvement for older adults. The Foresight Report\textsuperscript{30} found, for example, that positive mental health and wellbeing were associated with social and economic benefits, identifying both the vulnerability of mental resources to future challenges, and the potential of these resources to adapt and meet challenges. Mental wellbeing, defined as ‘a dynamic state, in which the individual is able to develop their potential, work productively and creatively, build strong and positive relationships with others, and contribute to their community’ was linked to ‘mental capital’, involving cognitive and emotional resources, and emotional intelligence comprising social skills and resilience to stressors. Museums on Prescription outcomes, such as involvement in purposeful activity, social support and increased health awareness, are affective in enhancing mental capital and helping individuals develop informed lifestyle choices, particularly those related to their own health and wellbeing.

**Synergies between museums and other community assets**

As demonstrated by the Creative Health report there are many synergies between both the types of activities and range of outcomes experienced in museums and other arts or cultural activities. These synergies are further articulated in *Museums as Spaces for Wellbeing*; a report that highlights a diverse range of creative and novel museum programmes and projects, demonstrating how the heritage sector is responding to ongoing cultural, and wider societal, policy shifts.\textsuperscript{31} A series of case studies and examples (The Lightbox; Yorkshire Sculpture Park; Birmingham Museums Trust; Canterbury Museums and Galleries; Museum of London; Bristol Museum and Art Gallery; Horniman Museum and Gardens; Tyne and Wear Museums and Archives; Hampshire Cultural Trust; The Restoration Trust; Mansfield Museum;
Cambridge University Museum; York Museums Trust) illustrate how innovative museum programmes are tackling key issues in society including: demographic changes; a growing commitment to co-creation in service design; the cumulative effects of entrenched health inequalities; and a growing awareness of the potential and importance of ‘green’ wellbeing, amongst other factors. The report also describes how museums are meeting organisational opportunities and challenges in relation to new audiences, partnerships, evaluation, organizational change and funding.

The main findings from *Museums as Spaces for Wellbeing* are summarised in eight ‘top tips’ or take home messages, detailed below:

1. *Work in partnership:* Effective partnerships multiply expertise, resources and networks. Make sure assumptions and objectives are shared through dialogue and recorded in written agreements that are regularly reviewed.

2. *Embed health and wellbeing organisationally:* Where wellbeing is understood as a core part of an organisation’s mission, a health and wellbeing offer is easier to develop and maintain.

3. *Consider sustainability carefully:* Museums and galleries have a duty of care towards vulnerable audiences, and an ethical responsibility to develop new programmes or projects with due thought to the long-term needs of, and consequences for, participants.

4. *Respond to local needs:* Heritage organisations have a vital role in place-making, and can use consultation, piloting and documents like JSNAs (Joint Strategic Needs Assessments) to clarify where their energy is best invested in order to make a difference to their communities.

5. *Take an asset-based approach:* The multiple assets of museums include staff, partners, visitors, expertise, location and indoor and outdoor spaces as well as collections.
6. **Document your work**: Documentation and evaluation are key to reflective practice, and essential for making a case for your work to funders, managers, colleagues, partners and participants.

7. **Give yourself time**: Take all the time necessary to build strong relationships with funders, partners and participants, and factor this in from the start.

8. **Shout about it**: Good practice and organisational change come about through sharing the work, within, beyond and between heritage organisations

   The aforementioned findings highlight the importance of building effective, sustainable partnerships and programmes in museums, which are co-produced with health, social care, third sector and, most importantly, intended audiences. This model of partnership-working is closely aligned with the notion of asset-based working, so there is clear potential within this space for the wider adoption of Museums on Prescription. The report also advocates the importance of responding to local needs and by so doing, museums can clearly articulate their social, cultural and economic value. Furthermore, evaluation is a crucial part of wellbeing-programme development, and this should take place at all stages of planning and implementation. Whilst a standardised clinical approach to evaluation might not be relevant or feasible given financial constraints, the notions of formative and summative evaluation, piloting activities and programmes, pre- and post-testing, or test-retest, are all extremely helpful and essential for the sector to continue to build a robust evidence base. The value of co-produced research and evaluation, conducted in collaboration with partners, stakeholders and participants, is also gaining considerable traction and is an excellent mechanism for ensuring that programmes are well designed and meet mutually agreed objectives.32

**Natural, or green, wellbeing.**
There is a robust and well-accepted evidence base for the wellbeing benefits of natural, or green, wellbeing. Human populations are increasingly disconnected from nature, yet research in recent decades has yielded substantial evidence exemplifying multiple health benefits from engaging in nature-based activities. Such activities include Green Gyms, Healthy Walks, Exercise on Prescription and other so-called Ecotherapies. The physical health benefits of outdoor activities, including walking, are self-evident and the obvious links with physical exercise have resulted in widespread acceptance of natural and exercise-based programmes within social prescribing. Nature-based interventions involving horticulture and environmental conservation have also been shown to increase mental wellbeing, reduce depression, anxiety and stress-related symptoms, and improve self-esteem and confidence. Furthermore, self-esteem and mood have been shown to improve in non-clinical populations as a result of walking in green spaces of high natural and heritage value.

**Green Gyms, Ecotherapy, Exercise on Prescription**

Green Gyms seek to improve the participant’s physical and mental health through contact with nature (gardening, walking in parks, developing green spaces). Pretty et al reviewed the effects of ten green exercise studies (conservation activities, cycling, horse-riding and walking) for over 200 participants across the UK. The study found that green exercise led to significant improvements in self-esteem and reduction in measures of negative mood regardless of the duration, intensity or type of exercise, indicating the potential of green schemes as public health interventions for mental health. Webber, Hinds and Camic assessed the wellbeing of 171 UK allotment gardeners; findings revealed the importance of meaningful activity, increased feelings of connectedness, and improved physical and mental health. The Conservation Volunteers (TCV), found significant mental health improvement in the first three months of green gym participation, using the SF-12 Health Survey. In addition to
physical and mental health benefits, improved quality of life and wellbeing, TCV found that being in the countryside emerged as a significant motivating factor, which supported other findings on the therapeutic value of natural environments, including acquiring new skills, increased awareness of conservation, participating in something worthwhile, as well as the social aspects of group working.40

Exercise on Prescription involves referring patients to supported exercise programmes (cycling, guided healthy walks, gym or leisure centre activity, keep fit and dance classes, swimming, aqua-therapy and team sports). In addition to physical health improvements, the benefits include learning new skills and achieving goals, improving the way that people look and feel about themselves, meeting new people and making friends, adding structure to the day and improving patterns of sleep. Since their inception in 1990, UK exercise referral schemes have increased to around 600 and this type of social prescribing is one of the most popular community-based referral pathways in the UK.41

**Synergies between cultural and natural wellbeing.**

It is perhaps not surprising that many of the outcomes identified for nature-based activities are the same as those for cultural participation. Psychological improvements in mood, self-esteem, confidence, quality of life, reductions in anxiety and stress, learning and acquisition of new skills, and development of social bonds, are shared across the two seemingly varied types of activities. Both types of activities also have a physical component.

Museums have been quick to recognise the value of incorporating outside spaces into wellbeing programmes. Heritage walks, guided trails both in and outside museums, historic houses and other heritage sites, gardening, yoga and other green or exercise activities are increasingly part of many organisations wellbeing provision. The Whitworth Gallery in Manchester’s ‘Art Garden’ hosts a horticultural wellbeing programme that takes advantage of
the outside space in combination with collections-based activities, which is run in collaboration with local charities. The Human Henge project, developed by the Restoration Trust, organises walks in Stonehenge for people with mental health problems, living on low incomes in Wiltshire, accompanied by archaeologists and musicians.

These examples demonstrate the close practical associations between nature and culture-based wellbeing programmes, but it is likely there are a number of underlying mechanisms that explain why these forms of engagement bring about similar outcomes. Culture and nature-based activities are inherently multisensory; as the aforementioned evidence reveals such activities all have a physical component. Even for participants who may have sensory, cognitive or mobility impairments many forms involve touch, real or virtual engagement (be it objects, art materials for drawing or making activities, tools for gardening). Touch has been shown to have important emotional connections, with some researchers advocating a new form of touch known as ‘emotional touch’. The notion of emotional touch is rooted in neurological evidence that sensory information gathered by touch is directly linked with emotional regions of the brain responsible for emotional states or feelings, behaviours and memories. Evidence also highlights the importance of learning, and research has shown that being actively involved in learning is linked to levels of engagement and cognitive processing. Both culture and nature-based activities involve participants meaningfully engaging with new ideas, information and actions; this deep-level cognitive processing is also likely to be a vector in the underlying mechanisms behind culture and nature-based activities. Finally, the majority of culture and nature-based activities are social, occurring in groups in public or social spaces. Social bonds and connectedness have already been highlighted as important contributors to physical and mental health.

The close affiliation between nature and art is not a new idea; numerous artists and writers have long appreciated the notion of nature as art, including the likes of John Ruskin.
and Katsushika Hokusai. However, it is likely that gaining an enhanced understanding of how different forms of engagement, and types of interventions or activities, bring about similar health outcomes will aid in the wider acceptance of such initiatives within society, such that culture and nature are not just viewed as ‘nice to have’ but instead are valued as essential community public health assets.

Conclusions

Whilst museums face a range of potential challenges resulting from economic austerity, demographic changes and entrenched health inequalities, this chapter has outlined evidence for revaluing museums as community public health assets. The work of the All Party Parliamentary Group for Arts, Health and Wellbeing has achieved new visibility for the connection between cultural engagement and health, and this provides new opportunities for museums. In tandem, the growing acceptance of social prescribing as an effective and economically sustainable mechanism for tackling major public health challenges, affords an opportunity for the museums and heritage sector to take advantage of increased awareness of the importance of community-based assets. As this chapter demonstrates, museums are ideally placed to become key players in supporting health and wellbeing for individuals and communities, via community inclusivity, creativity, lifelong learning and partnership, as well as exceptional resources in the form of dedicated and highly trained staff, engaging public spaces and material culture.

Museums as Spaces for Wellbeing has highlighted some of the obstacles that may stand in the way of growth; these include:

• ethically important issues of legacy and sustainability
• the lack of established models through which social prescribing might be rolled out
• the challenges of project evaluation
• the slow rate of organisational change on which progress depends
• the low visibility of health and wellbeing in museums, even where embedded organisationally.

The report however offers possible routes forward. With regard to legacy and sustainability, museums that have made health and wellbeing central to their offer find themselves increasingly able to sustain this work with core funding, and in some cases (for example, Canterbury Museums and Galleries) have experienced an uplift in funding on the basis of their wellbeing provision. With a growing focus on community asset working and social prescribing, mechanisms for developing more formalised relationships between culture and health will be increasingly available, and it has perhaps never been timelier for museums to be re-framed as vital community public health assets.

3 https://www.local.gov.uk/asset-approach-community-wellbeing-glass-half-full
4 http://www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review
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9 D. Fujiwara, L. Kudrna, T. Cornwall, K. Laffan & P. Dolan, *Further analysis to value the health and educational benefits of sport and culture* (DCMS, 2015).


14 https://www.scie.org.uk/publications/briefings/briefing39/


17 NHS England (2016) *General Practice Forward View*. Available at: https://www.england.nhs.uk/gp/gpfv/


https://culturehealthresearch.wordpress.com/museums-on-prescription/


31 S. Desmarais, L. Bedford & H. J. Chatterjee (2018), Museums as Spaces for Wellbeing: A Second Report from the National Alliance for Museums, Health and Wellbeing. Available at: https://museumsandwellbeingalliance.wordpress.com


39 https://www.tcv.org.uk/greengym

40 https://www.tcv.org.uk/greengym/health-benefits/green-gym-research


