



Literature Review: evidence of impact of museums in the fields of health and wellbeing

Final Report

January 2021

CONTENTS

1. INTRODUCTION.....	1
Museums and Health	7
Museums and Communities	7
Museums and Education.....	8
Museums and Children	9
2. MUSEUMS AND HEALTH.....	10
Overview of Museums and Health	10
Key Examples – Museums and Health.....	11
3. MUSEUMS AND COMMUNITIES	23
Overview of Museums and Communities.....	23
Key Examples – Museums and Communities	23
4. MUSEUMS AND EDUCATION	31
Overview of Museums and Education	31
Key Examples – Museums and Education.....	31
5. MUSEUMS AND CHILDREN	37
Overview of Museums and Children.....	37
Example – Museums and Children	37
APPENDIX 1: REFERENCES – SPECIFIC EXAMPLES FROM LITERATURE	39
APPENDIX 2: LIST OF REVIEWS.....	44

1. INTRODUCTION

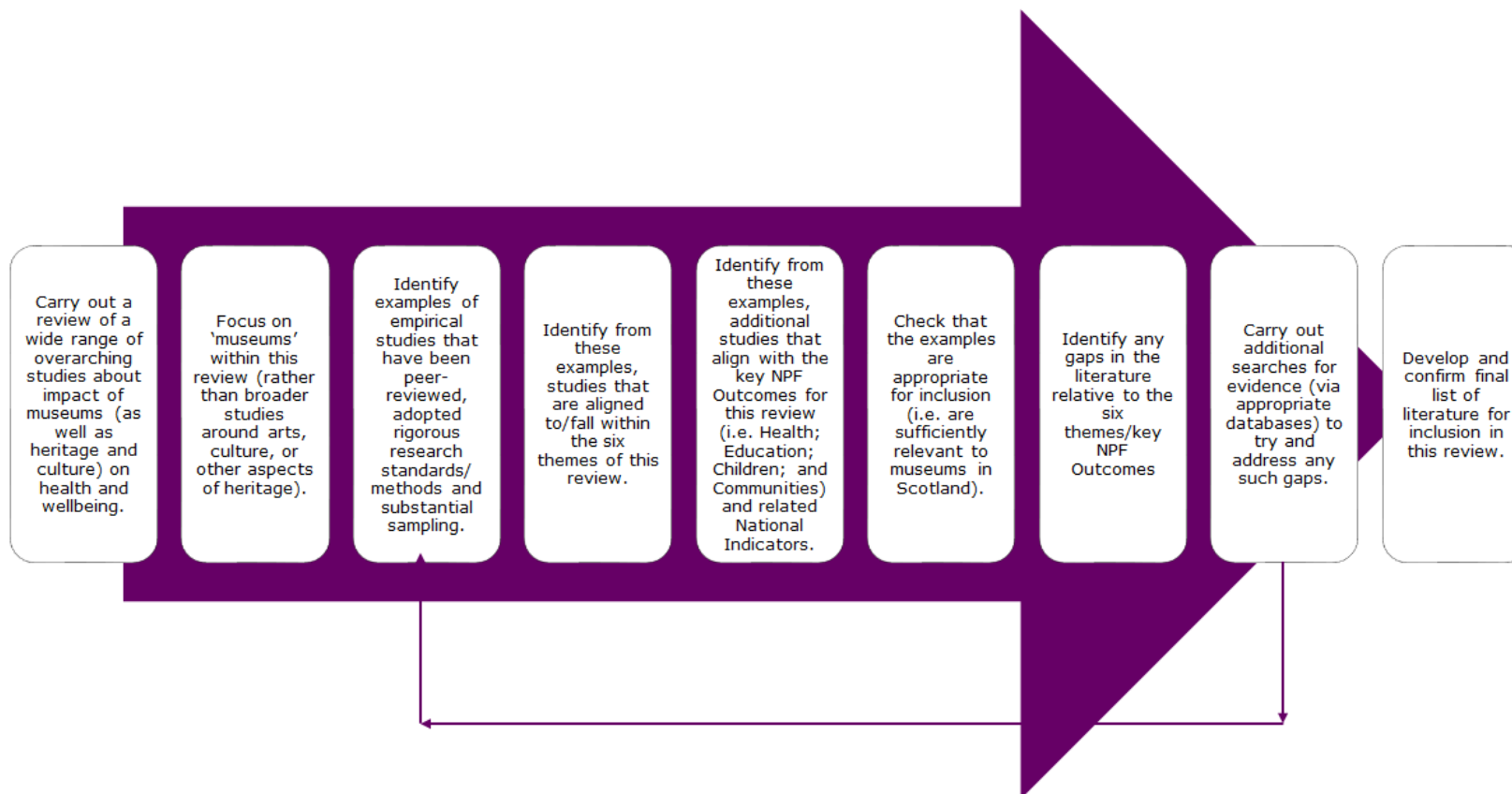
- 1.1 DC Research was commissioned by Museums Galleries Scotland (MGS) to carry out a research study: 'Literature Review: evidence of impact of museums in the fields of health and wellbeing'.
- 1.2 The study was a desk-based review of literature about the impact of museums in the fields of health and wellbeing.
- 1.3 MGS specified that the review should consider (but not be limited to) six themes:
 - the value of museums as places to interact;
 - the impact of museum programming on loneliness/isolation, both on an individual level and within communities;
 - the role of museums as vehicles for building social and cultural capital;
 - the impact of attendance/employment on mental health;
 - the impact of attendance/employment on life expectancy; and
 - the impact of attendance and outreach programming on the social, intellectual, and physical development of children and young people.
- 1.4 The purpose of the review is to help inform MGS's work on behalf of the Scottish museums and galleries sector, in developing a nationwide approach to measuring and articulating the social impact of museums and galleries. It is anticipated that the review will therefore contribute towards the aims of Going Further - the National Strategy for Scotland's Museums and Galleries (i.e. Aim 2 as well as Aims 4 and 5), in addition to which it will help deliver a number of aspects of the 2020-22 Delivery Plan (i.e. Aims 2c, 4c, 5c).
- 1.5 This is a critical time for the museums and galleries sector. The current situation resulting from the Covid-19 pandemic has created huge, additional challenges for the sector as well as bringing into sharper focus the ongoing challenges that have been facing museums over recent years in terms of their financial sustainability and their role in helping to deliver government priorities and a range of social and economic outcomes. Therefore, having strong evidence about the contributions that museums and galleries make to society and the economy is more important than ever, and will help to support the case for museums in a variety of arenas.
- 1.6 A key factor in terms of making the case is the Scottish Government's National Performance Framework (NPF), and presenting the evidence of the impact of museums in the fields of health and wellbeing in this way helps government, funders, stakeholders, museums themselves, and the general public see the contributions that museums and galleries in Scotland make to the National Performance Framework national outcomes and indicators.
- 1.7 Therefore, linking back to the six themes for this review, the NPF national outcomes and indicators that were the most directly relevant are:

- **National Outcome: Health** (and specifically, the national indicators on 'healthy life expectancy' and 'mental wellbeing').
 - **National Outcome: Communities** (and specifically, the national indicators on 'perceptions of local area', 'loneliness', 'places to interact' and 'social capital').
 - **National Outcome: Education** (and specifically, the national indicator on 'educational attainment').
 - **National Outcome: Children** (and specifically, the national indicators on 'child social and physical development' and 'child wellbeing and happiness').
- 1.8 It should be noted that this review was a time (and resource)-limited project that sought to provide an overview of specific studies within the fields of health and wellbeing. It was not a systematic or meta-review but was focused on identifying strong examples of evidence of the demonstrable social impact of museums for society and individuals. Through the review, MGS were seeking high-level statements that demonstrate the clear impact of museums within the six fields listed on p.1.
- 1.9 The brief for the study specified that all literature reviewed should be drawn from peer-reviewed evidence that uses rigorous research standards and substantial sampling. As such, there was a strong emphasis on research that met these standards – typically those that have appeared in peer-reviewed academic publications, applied appropriate research standards and had adopted sufficient sampling. These requirements meant a focus on empirical studies that had adopted some scale of primary research – and meant that studies that were themselves overviews, summaries of other research etc. were excluded (although they formed an important part of the literature review process as outlined later in this section).
- 1.10 There are exceptions to the requirement for the literature to have been peer-reviewed (in terms of appearing in peer-reviewed academic journals), where some key examples of the impact of museums have featured in commissioned research rather than peer-reviewed academic journals. This is discussed in more detail and explicitly acknowledged where such examples are used within the relevant sections.
- 1.11 As an initial step, the study focused on reviewing a wide range of literature about museums and health and wellbeing – initially through carrying out a review of publicly available research studies, evidence summaries, research digests, reviews, and evaluations. (See Appendix 2 for the studies that were included in this step).
- 1.12 The aim of this was to trawl a wide range of sources to identify examples of evidence about the impact of museums on health and wellbeing that could be suitable for inclusion in the review. These documents themselves are, obviously, not individual examples of evidence of the impact of museums – but they include within them a wide range of references to such empirical studies.
- 1.13 Implementing a wide search strategy for this stage of the review ensured that a broad range of literature was considered, and that is why the range of documents listed in Appendix 1 were all given due consideration.
- 1.14 This process enabled the review to identify a long list of potential examples of the impact of museums on various aspects of health and wellbeing. These examples were then assessed for their appropriateness for inclusion based on the following factors: (i) alignment with the agreed themes of the review; (ii) alignment with the National Performance Framework Outcomes and National Indicators; (iii) strength of the

evidence; and (iv) appropriateness for inclusion (i.e. relevance of the evidence to museums in Scotland).

- 1.15 The iterative process that was then adopted for the review is summarised in Figure 1.1 overleaf.

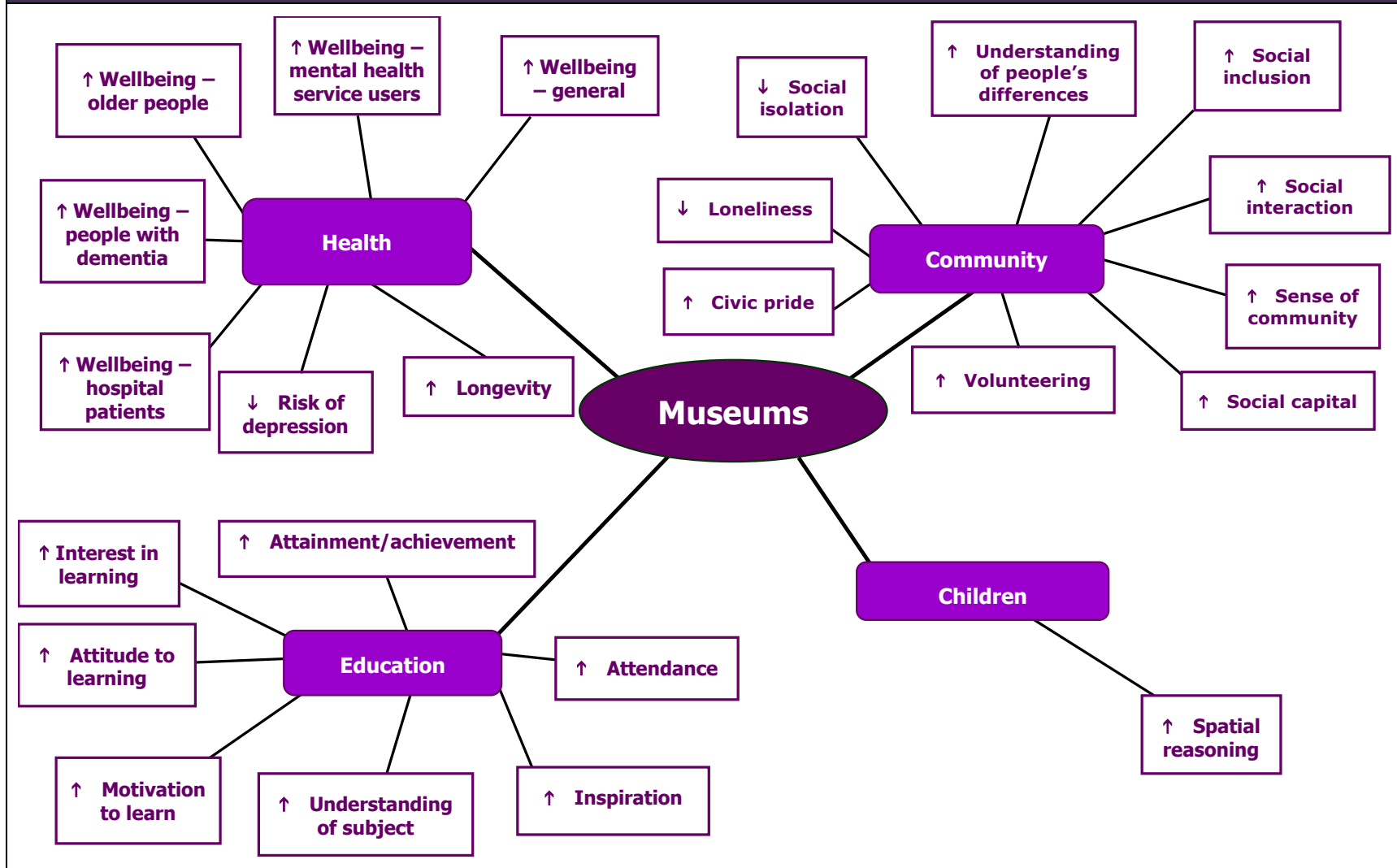
Figure 1.1: Summary of literature review process



Source: DC Research summary of literature review process for MGS, 2020

- 1.16 The main sections of this report deal with each of the relevant National Performance Framework Outcome themes in turn – and the relevant sections also note any overlap (where the same literature sources show a contribution to more than one outcome).
- 1.17 A summary of the main findings from the literature review are presented in the rest of this section – initially as a figure (in a ‘mind-map’ format) showing the impacts of museums on various aspects of health and wellbeing, followed by a summary of headline statements highlighting the key areas where the literature review has identified the impact of museums.
- 1.18 It should be noted that whilst this literature review has identified a range of peer-reviewed and other literature which evidences the impact of museums on health and wellbeing, the literature also includes studies that have assessed the same issues/themes and not found any impact, or highlighted concerns around particular activities (e.g. around dementia activities). Examples of these are noted in the relevant sections. In addition, much of the literature includes calls for further research in the areas that have been investigated – emphasising that for a number of areas, there is more work to be done to build upon some of the more exploratory research to test, and further support the generalisability of the findings.
- 1.19 Figure 1.2 below shows a mind map summary of the main findings from this literature review, highlighting the areas where the literature does show the impact of museums in the fields of health and wellbeing.
- 1.20 This shows that there are a range of impacts around **health** – which clearly link the National Performance Framework Outcome national indicators around life expectancy and mental wellbeing.
- 1.21 In addition, the literature on **community** shows the impact museums have in relation to the national indicators around addressing loneliness, providing places to interact, engendering various aspects of social capital, and the role of volunteering around this.
- 1.22 The literature review also identified impacts around **education** – including educational attainment and achievement, as well as on interest, attitudes, motivation, inspiration and understanding.
- 1.23 Finally, there is limited literature on the specific impact of museums on **children** – in relation to the specific national indicators in the brief for this study – i.e. ‘child social and physical development’ and ‘child wellbeing and happiness’.
- 1.24 Following on from the Figure 1.2 summary, the rest of this section looks at each of the four NPF outcome areas (health, community, education and children) and presents a summary of the assessment of the strength of evidence in the literature reviewed, the types of museum activities and engagement this relates to, the types of methods/approaches used in the literature reviewed, the applicability of the findings to museums and galleries in Scotland, and finally, summarises the literature review findings through a range of high level statements.

Figure 1.2: Summary of key areas of impact – museums and health and wellbeing



Source: DC Research 'mind-map' summary of the key areas of impact identified in the review

Museums and Health

- 1.25 There is strong evidence from the literature about the impact of museums in terms of health and wellbeing.
- 1.26 This is in relation to both specific initiatives and interventions (museum-based and via outreach) and also general museum visiting/engagement.
- 1.27 The literature drawn on encompasses evidence from studies that have adopted various methods (including longitudinal analysis of large-scale datasets; quantitative studies of large-scale surveys; specific quantitative, qualitative, and mixed-methods studies of specific museum activities and programmes; as well as smaller-scale qualitative studies using various approaches) – showing the range and diversity of the type of evidence that underpins the literature used.
- 1.28 The evidence includes examples at the UK-level (which therefore includes Scotland) as well as specific examples from within the UK which are relevant to museums in Scotland. In addition to which any international examples included relate to activities that take place in Scottish museums – showing that they are appropriate for inclusion in this review.
- 1.29 The **main findings around museums and health** are summarised in the statements below, which **clearly link to the relevant NPF national indicators on 'healthy life expectancy' and 'mental wellbeing'**:

- Visiting museums has been associated with longevity and a lower risk of dying.
- Visiting museums has been shown to have a positive impact on general wellbeing.
- People who visit museums have been found to have a lower risk of developing depression.
- Mental health service users show increased wellbeing (e.g. confidence, sociability, and psychological wellbeing) after engaging with museums – through both museum-based and outreach activities.
- Older people exhibit a range of wellbeing benefits from engaging with museums – including lower incidence of dementia, reduced chronic pain, lesser decline in cognitive function, and positive impact on mood.
- People with dementia and their care-givers derive wellbeing related benefits (e.g. feeling more socially included/keener to socialise, enhanced cognitive capacities, improved mood, increased confidence, reduced isolation), from engaging in museum activities.
- Museum outreach activities in hospitals – especially object-handling sessions – have been shown to have a positive impact on the wellbeing of participants.

Museums and Communities

- 1.30 There is good evidence from the literature about the impact of museums in terms of community.
- 1.31 This is in relation to both specific initiatives and interventions (museum-based and via outreach) and also general museum visiting/engagement.

- 1.32 The literature drawn on encompasses evidence from studies that have adopted various methods (including quantitative studies of large-scale surveys; quantitative studies of research; specific quantitative, qualitative, and mixed-methods studies of both general museum engagement and specific museum activities and programmes; as well as smaller scale qualitative studies using various approaches) – showing the range and diversity of the type of evidence that underpins the literature used.
- 1.33 The evidence includes examples at the UK-level (which therefore includes Scotland), alongside specific examples from within Scotland – as well as specific examples from within the UK which are relevant to museums in Scotland. In addition to which any international examples included relate to activities that take place in Scottish museums – showing that they are appropriate for inclusion in this review.
- 1.34 The **main findings around museums and communities** are summarised in the statements below, which **clearly link to the relevant NPF national indicators on 'perceptions of local area', 'loneliness', 'places to interact' and 'social capital'**.

- Museum programmes have been shown to help combat social isolation and loneliness, engender social inclusion, and enhance social interaction for those involved – including those with specific health conditions.
- There is evidence that those who engage in specific museum programmes achieve benefits that help them individually (e.g. increased self-esteem, greater motivation, increased sense of identity, and improved confidence) as well as enhance their contribution to, and engagement with, their community (e.g. greater pride in their area, better social links and networks).
- Those who volunteer in museums report a range of benefits (e.g. improvements in life satisfaction, increased social connections and improved social life, strong sense of connectedness, stronger connections between museums and their communities) and as such museum programmes, and volunteering in museums are directly contributing to the development of individual and community capital and, as a result, are contributing to the Place Principle¹.
- Those who visit museums are more likely to volunteer.

Museums and Education

- 1.35 There is good evidence from the literature about the impact of museums in terms of education – although it is acknowledged that some of it is drawn from non-peer-reviewed sources.
- 1.36 This is in relation to both specific initiatives and interventions (museum-based and via outreach) and also general museum visiting/engagement. However, much of the literature identified is about the impact of specific initiatives that have boosted the capacity and capability of museums to engage with schools, and much of it relates to guided learning/museum-led sessions rather than general museum visiting/engagement.
- 1.36.1 The literature drawn on encompasses evidence from studies that have adopted various methods (including quantitative studies of large-scale primary research; specific

¹ <https://www.gov.scot/publications/place-principle-introduction/>

quantitative, qualitative, and mixed-methods studies of specific museum activities and programmes; as well as smaller scale qualitative studies using various approaches) – showing the range and diversity of the type of evidence that underpins the literature used.

- 1.37 The evidence includes examples at the UK-level (which therefore includes Scotland), alongside specific examples from within Scotland – as well as specific examples from within the UK which are relevant to museums in Scotland. In addition to which any international examples included relate to activities that take place in Scottish museums – showing that they are appropriate for inclusion in this review.
- 1.38 The **main findings on museums and education** are summarised in the statements below, which **clearly link to the relevant NPF national indicators on 'educational attainment'**:

- Engaging with museums has positive impacts on educational attainment and achievement.
- Engaging with museums positively impacts on attendance, interest, attitudes, and motivation for learning.

Museums and Children

- 1.39 There is very limited evidence from the literature about the impact of museums in terms of children – especially when looking for specific literature around the key national indicators identified (i.e. 'child social and physical development' and 'child wellbeing and happiness').
- 1.40 Given that the national indicator on child social and physical development relates to an assessment of children at their 27-30 month review, there does not seem to be any literature on the impact of museums on children of this age in terms of their social and physical development.
- 1.41 In relation to child wellbeing and happiness – whilst Section 2 on museums and health looks at literature on the impact of museums on health and wellbeing, this is very much focused on adults. Therefore, it is difficult to use this evidence to support any impact of museums on child wellbeing and happiness – especially as defined by the relevant national indicators around children.
- 1.42 As such, there is very little (if any) relevant additional literature to include.
- 1.43 This, of course, does not mean that museums do not offer activities around these national indicators, simply that there is little (if any) literature about the impacts of such activities. Therefore, this is clearly an area that would require further research to identify the impact of museums directly in relation to the national indicators around 'child social and physical development' and 'child wellbeing and happiness'.
- 1.44 One finding from a particular study is summarised in the statement below:

- Younger children's engagement with museum work has been shown to improve spatial reasoning.

2. MUSEUMS AND HEALTH

Overview of Museums and Health

- 2.1 The literature around museums and health is the key area where there is evidence of the impact of museums – for both of the areas around the national indicators (i.e. 'healthy life expectancy' and 'mental wellbeing').
- 2.2 As such, this is the longest section of this report – which reflects the scale of literature in this area relative to the other outcome themes.
- 2.3 As noted in Section 1, there is strong evidence from the literature about the impact of museums in terms of health and wellbeing – and this covers both specific initiatives and interventions – i.e. programmes and activities delivered by museums (both museum-based and via outreach) as well as literature about the impacts of general museum visiting/engagement.
- 2.4 The literature drawn on in this section encompasses evidence from studies that have adopted various methods – including longitudinal analysis of large-scale datasets; quantitative studies of large-scale surveys; specific quantitative, qualitative, and mixed-methods studies of specific museum activities and programmes; as well as smaller-scale qualitative studies using various approaches. This range of studies and the variety of methods and approaches adopted helps to show the breadth and depth of literature in this area.
- 2.5 The evidence around health includes examples at the UK-level (which therefore includes Scotland) as well as specific examples from within the UK which are relevant to museums in Scotland. In addition to which any international examples included relate to activities that take place in Scottish museums – showing that they are appropriate for inclusion in this review.
- 2.6 This section has been subdivided into the following categories:
 - Life expectancy / longevity
 - Mental wellbeing (general)
 - Mental wellbeing (supporting those with specific mental health conditions)
 - Mental wellbeing (older adults)
 - Mental wellbeing (dementia)
 - Mental wellbeing (in hospital / healthcare settings)

Key Examples – Museums and Health

Life expectancy and longevity

- 2.7 In terms of **life expectancy and longevity**, a key study is the work by Fancourt & Steptoe (2019) which sought to *"explore associations between different frequencies of arts engagement and mortality over a 14-year follow-up period"*.
- 2.8 Using a prospective cohort study drawn from the English Longitudinal Study of Ageing (data from a total of 6,710 adults were included in the analysis), the study looked at self-reported receptive arts engagement (**going to museums, art galleries, exhibitions, the theatre, concerts, or the opera**) against mortality measured through data linkage to the National Health Service central register, and found that: **"People who engaged with receptive arts activities on an infrequent basis...had a 14% lower risk of dying at any point during the follow-up...compared with those who never engaged...People who engaged with receptive arts activities on a frequent basis...had a 31% lower risk of dying"**.
- 2.9 They concluded that *"Receptive arts engagement could have a protective association with longevity in older adults. This association might be partly explained by differences in cognition, mental health, and physical activity among those who do and do not engage in the arts, but remains even when the model is adjusted for these factors"*.
- 2.10 A Swedish study carried out by Konlaan, Bygren & Johansson (2000) aimed to *"ascertain the possible influence of attending various kinds of cultural events or visiting cultural institutions as a determinant of survival"* through a cohort study which followed up more than 10,000 over a 14 year period using setting the Swedish survey of living conditions among the adult Swedish population aged 25-74 years. The study found **"a higher mortality risk for those people who rarely visited the cinema, concerts, museums, or art exhibitions compared with those visiting them most often"** and concluded that *"attendance at certain kinds of cultural events may have a beneficial effect on longevity."*
- 2.11 Similar studies – all cohort studies - have found results that further support these findings.
- 2.12 For example, Byrgen et al (2009) found that *"Attendance at cultural events is associated with better survival and self-rated health"*. The study *"aimed to determine whether attendance at cinemas, theater, art galleries, live music shows, and museums was associated with cancer-related mortality"* and used a *"randomly selected, cancer-free cohort of Swedish adults aged 25–74 years (n = 9011), formed in 1990–91, was followed up to 31 December 2003."* The study found that **"Rare and moderate attendees were 3.23 and 2.92 times, respectively, more likely to die of cancer during the follow-up period than frequent attendees"** and concluded that *"The results, if replicated, imply that promoting attendance at cultural events could lead to improved urban population health."*
- 2.13 Similarly, Byrgen et al (1996) had earlier investigated *"the possible influence of attendance at cultural events, reading books or periodicals, making music or singing in a choir as determinants for survival"* using a Swedish cohort study (n=12,675) and found **"an influence on mortality when the eight control variables were controlled for in people who rarely attended events compared with those attending most often, the relative risk being 1.57"**, leading to the conclusion that *"Attendance at cultural events may have a positive influence on survival."*

- 2.14 Finally, Lokken et al (2020) investigated *"the gender-specific association between all-causes of mortality and participation in single types of cultural activities, amount and participation frequency"* through a cohort study of more than 35,000 participants.
- 2.15 The study found that *"Mortality risk was higher for non-participants in any receptive or creative activities"* and in particular that ***"When a number of receptive activities was associated with all-cause mortality, reduced risk occurred with attendance in 2 or 3–4 activities (21% and 31%, respectively)"*** - a museum/art exhibition was included as one of the receptive activities.
- 2.16 Lokken et al (2020) concluded that ***"Frequently attending at least one cultural activity influenced longevity...while receptive activity benefits were mostly found for men. Thus, promoting and facilitating engaged cultural lifestyles are vital for longevity"***.

Mental wellbeing (general)

- 2.17 There is a range of literature about the role of museums and galleries in improving general wellbeing, and these studies have used a range of approaches.
- 2.18 For example, Fancourt & Tymoszuk (2019) explored whether *"cultural engagement in older adults is associated with a reduced risk of developing depression over the following decade"*. Using data from 2,148 adults in the English Longitudinal Study of Ageing who were free from depression at baseline, the study used *"logistic regression models to explore associations between frequency of cultural engagement (including going to museums, theatre and cinema) and the risk of developing depression over the following 10 years"*.
- 2.19 The results showed that *"there was a dose-response relationship between frequency of cultural engagement and the risk of developing depression independent of sociodemographic, health-related and social confounders. This equated to a 32% lower risk of developing depression for people who attended every few months...and a 48% lower risk for people who attended once a month or more"* and led Fancourt & Tymoszuk (2019) to conclude that ***"Cultural engagement appears to be an independent risk-reducing factor for the development of depression in older age."***
- 2.20 Weźiak-Białowolska et al (2019) study was about *"investigating causative impact of participation in creative activities and attendance to cultural events on well-being in the British population."* Through analysing three waves (2011, 2012, 2014) of the Understanding Society – U.K. Household Longitudinal Study (which provided a sample size of more than 22,000), the results confirmed ***"a positive causative relationship between cultural attendance, cultural participation, and well-being outcomes"*** and led to the conclusion that *"This study provides some support for the positive role of active arts engagement, especially passive attendance to art events, in the improvement of human well-being"*.
- 2.21 A similar study in Norway (Cuypers et al, 2011) analysed *"the association between cultural activity and perceived health, anxiety, depression and satisfaction with life"* using data from 50,797 adult participants from the third population-based Nord-Trøndelag Health Study (2006-2008). The results showed that ***"participation in receptive and creative cultural activities was significantly associated with good health, good satisfaction with life, low anxiety and depression scores in both genders. Especially in men, attending receptive, rather than creative, cultural"***

- activities was more strongly associated with all health-related outcomes.”* The receptive cultural activities analysed included visiting a museum or art exhibition.
- 2.22 There are other similar studies which present additional findings to support this, for example Grossi et al (2012) sought to *“understand the impact of health status and cultural participation upon psychological well-being, with special attention to the interaction between patterns of cultural access and other factors known to affect psychological well-being”*, using a sample of 1,500 Italian citizens and the results showed that *“...among the various potential factors considered, **cultural access unexpectedly ranks as the second most important determinant of psychological well-being**, immediately after the absence or presence of diseases, and outperforming factors such as job, age, income, civil status, education, place of living and other important factors.”*
- 2.23 Some of the other literature assessing the impact of museums on mental wellbeing takes a more focused, in-depth, qualitative approach, with resultantly smaller sample sizes, but can be used to further support the findings around mental wellbeing and museums.
- 2.24 For example, Binnie (2010), presented the results of *“research conducted within Leicester’s New Walk Museum exploring whether viewing art within the museum impacts reported anxiety.”* The study involved 22 interviews – half with museum staff and half with visitors (a mix of frequent and infrequent). The study found that *“From the data collected within these two studies it appears that, at least for the museum visiting population, **viewing art within a museum does have a positive impact upon anxiety, and thus also wellbeing**”* and that *“This positive experience for museums and art gallery visitors suggests that as well as being seen as educational or enjoyable places to visit, that **the well-known idea that they are spaces of calm within a busy world can be true and as such museums and art galleries can be seen as places beneficial to personal wellbeing.**”*
- 2.25 Also, Packer (2008) explored “the beneficial outcomes that visitors seek and obtain from a museum visit, in terms that are not related to learning outcomes” using 44 interviews with 60 museum visitors at Queensland Museum. Some of results included: *“**Psychological well-being (mentioned in 59 percent of interviews)** — Evidence was found for the relevance of five of the six elements of psychological well-being: personal growth, environmental mastery, purpose in life, positive relations, and self acceptance”* and *“**Restoration (mentioned in 57 percent of interviews)** — Evidence of restorative outcomes was sought in visitors’ reports of having attained a sense of relaxation, peace and tranquility, or thoughtfulness as a result of their visit.”*
- 2.26 In addition, there is also (non-peer-reviewed) literature that provides further evidence around this.
- 2.27 For example, Fujuwara (2013) looked at *“the relationships between museums, the arts and wellbeing using data from the Taking Part survey”* – which involved quantitative analysis of data from a sample of more than 21,000 for some aspects, and over 36,000 for other aspects of analysis.
- 2.28 The study found that *“**visiting museums has a positive impact on happiness and self-reported health after controlling for a large range of other determinants that may confound the relationship.**”* and provided headline valuation figures which identified that: *“**People value visiting museums at about £3,200 per year”**.*

- 2.29 Fujiwara et al (2015) used data from the British Household Panel Survey and the Understanding Society Survey to measure and value the benefits to society of culture and sport. The museums data used was from a sample size of more than 25,000. The study found that "**After controlling for the main determinants of health and health service usage: Those who visit...museums are more likely to report good health than those who do not (2.01%).**"
- 2.30 In addition, the Art Fund's Calm and collected report (2018) involved a survey of more than 2,500 UK adults and found that "**almost two thirds (63%) of us have at some point visited a museum or gallery to deal with stress and anxiety**".
- 2.31 The Art Fund (2018) study also found that "**People who say they do regularly visit museums and galleries report a greater sense of satisfaction with their lives than those who have never visited**" - the survey results being 64% (who visit once a month or more), 62% (who visit every 3 months or more) and 58% (who visit less than every 3 months) compared to 49% (who never visit). Similar patterns exist for sense of purpose (61%; 59%; 51% compared to 43%), things in life are worthwhile (68%; 66%; 59%; compared to 52%) and happiness yesterday (66%; 64%; 57%; compared to 47%).

Mental wellbeing (supporting those with specific mental health conditions)

- 2.32 Some studies have specifically looked at museum programmes and activities that have supported those with particular mental health conditions.
- 2.33 For example, Morse et al (2015) using a mixed-methods approach "*examined the effects of museum outreach sessions on confidence, sociability and wellbeing measures for mental health (n=85) and addiction recovery (n=59) service-users*".
- 2.34 Morse et al (2015) state that "*measures of confidence, sociability and wellbeing were evaluated quantitatively through a 'ladder of change' model of steps towards independence and feedback was analysed qualitatively*" and the quantitative results shows that "*Comparison of scores from first, mid and last sessions showed increases across all measures*" whilst "*qualitative analysis revealed additional gains including pride, learning and skills, and creativity*". The paper concludes that: "**Creative museum activities showed increases in participant levels of confidence, sociability and wellbeing.**"
- 2.35 Thomson et al (2020) sought to assess the "*the biopsychosocial effects of participation in a unique, combined arts- and nature-based museum intervention, involving engagement with horticulture, artmaking and museum collections, on adult mental health service users*" using a mixed-methods approach, which involved 46 adult mental health users across two phases. Positive results were found in both the quantitative and qualitative aspects: "*Inductive thematic analysis of Phase 1 interview data revealed **increased feelings of wellbeing brought about by improved self-esteem, decreased social isolation and the formation of communities of practice. Statistical analysis of pre-post quantitative measures in Phase 2 found a highly significant increase in psychological wellbeing.***"
- 2.36 Thomson et al (2015) concluded that "*Creative green prescription programmes, using a combination of arts- and nature-based activities, present distinct synergistic benefits that have the potential to make a significant impact on the psychosocial wellbeing of adult mental health service users*".

- 2.37 Iwasaki et al (2005) looked at the contribution of leisure participation in predicting stress coping and health among police and emergency response services workers and examined *"the extent to which frequency and enjoyment measures of leisure participation predict adaptational outcomes, over and above the contributions of general coping"*. Using a repeated measures design, and involving a sample of 132 police and emergency response services workers, the study *"provides evidence that the type of leisure activity matters in predicting immediate adaptational outcomes (coping effectiveness, coping satisfaction and stress reduction) and mental and physical health"*. Of particular note for museums, which featured as one of the cultural leisure measures, *"...social leisure and **cultural leisure significantly predicted greater mental or physical health.**"*
- 2.38 Some other, qualitative studies (with smaller sample sizes) on this include:
- 2.39 Neal (2012) carried out a mixed methods pilot study of a project involving a partnership of four museums and galleries. The project involved delivering arts-based workshops lasting up to 10 weeks. Neal (2012) sought to answer the question *"Can creative engagement in museums improve the mental health and wellbeing of people experiencing mental distress?"*.
- 2.40 A total of 39 of the participants in the project took part in the research study which found that *"participants experienced **immediate changes to their mental wellbeing** as a result of the art activity. The results show a change in many of the common symptoms of depression, anxiety and stress. The immediate effects reported were enjoyment, (it is) absorbing, relief from physical pain, (it) takes mind off problems, calming, healing, therapeutic, relaxing, gives structure to life"*.
- 2.41 In addition, *"Some participants reported a number of **long-term benefits such as feeling better, increased confidence**, increased ability to accept praise, stimulated self-motivation, increased awareness, increased ability to deal with problems, something to live for, making plans for the future and a desire to give something back. **Social interaction was a major theme emerging from the findings expressed in terms of engagement/isolation**, group dynamics, group supporting each other, fun and independence"*.
- 2.42 Lawson et al (2014) used an interpretive phenomenological analysis approach to explore the experiences of people living with mental health problems who attended a community-based arts project. The study was based on interviews with eight participants and the key findings were grouped into seven theme headings: *"a prized experience...drawing confidence and self-worth from the project...positive influences of the group setting...forming an identity beyond mental illness...acquisition of creative skills...gaining focus, structure and meaningful occupation...negative aspects of the project"*.
- 2.43 Roberts et al (2011) *"aimed to understand the psychological and social aspects of how art-viewing, in a public art gallery, could be used as an activity to support family carers of people with mental health problems"*. Using a grounded theory methodology, and involving eight carer-participants and two facilitator participants, the findings suggest that *"art-viewing in a group within a gallery setting has the potential to be used more widely as a community-based, low-cost and non-clinical activity to provide social and psychological support for carers of people with mental-health problems."*

Mental wellbeing (older adults)

- 2.44 There are a range of studies that look at the positive impacts of museums on the wellbeing of older adults (impact of museums on older adults with dementia is considered later in this section).
- 2.45 Fancourt, Steptoe & Cadar (2018) carried out analysis of longitudinal cohort data, drawn from the English Longitudinal Study of Ageing (ELSA) and involving a sample of 3,911 adults to assess museum attendance and cognitive reserve over a ten-year period. ELSA is a *"large, nationally representative, multidisciplinary cohort study of the English population aged 50 and older"*.
- 2.46 Fancourt et al (2018) *"included participants who were core members in the [ELSA] study, who were free of dementia at baseline (wave 2) and who provided data across all variables of interest at 10-year follow-up"* and their analysis **"showed for the first time that among people who visit museums every few months or more, there is a lower incidence rate of dementia over a 10-year follow-up period."**
- 2.47 The authors acknowledge that *"much of the association was explained by demographic and socioeconomic variables"* however, *"it is notable that the relationship for more frequent engagement was maintained even when controlling for these confounders."*
- 2.48 The authors conclude that: *"this novel analysis demonstrates that cultural participation through museum attendance could provide opportunities for interventions in older adults as a way of supporting engaged lifestyles to prevent dementia"*.
- 2.49 A similar approach was also taken by Fancourt & Steptoe (2018) who *"explored the association between three types of cultural engagement (visiting museums/galleries/exhibitions, going to the theatre/concert/opera and going to the cinema) and change in cognitive function over 10 years amongst adults aged over 52."* Using data from the English Longitudinal Study of Ageing (ELSA) the participants (n=3,445) were assessed in 2004/5 and 2014/15.
- 2.50 The study found that *"Independent of demographic, health and social confounders, **visiting museums/galleries/exhibitions and going to the theatre/concert/opera were associated with a lesser decline in cognitive function"**.*
- 2.51 Notable, in terms of the level of engagement the study found that *"Overall, our results suggest that **more frequent cultural engagement is associated with more marked effects, but even annual engagement may be protective."***
- 2.52 A third longitudinal study by Fancourt and Steptoe (2018) looked at physical and psychosocial factors in the prevention of chronic pain in older age, including exploring the role of cultural engagement (including going to museums, art galleries, exhibitions, concerts, the theatre, or the opera).
- 2.53 Again, using data from the English Longitudinal Study of Ageing (ELSA) the study tracked 2,631 adults aged 50 or over who were free from chronic pain at baseline across a decade to *"explore whether physical or psychosocial factors reduced the risk of developing chronic pain"*.
- 2.54 The study found that: *"In relation to psychosocial factors, **cultural engagement was also protective against the development of chronic pain"**.*

- 2.55 Thomson et al (2018) looked at the effects of a museum-based social prescription intervention on quantitative measures of psychological wellbeing in older adults. The aim of the study was to *"assess psychological wellbeing in a novel social prescription intervention for older adults called Museums on Prescription and to explore the extent of change over time in six self-rated emotions"*.
- 2.56 The study involved 115 participants aged 65–94 years who were referred to museum-based programmes comprising 10 weekly sessions, by healthcare and third sector organisations. 12 programmes, facilitated by museum staff and volunteers, were conducted in seven museums, and a mixed-methods approach involved quantitative measures, diaries, and interviews.
- 2.57 Using multivariate analyses of variance, the study found **"significant participant improvements in all six MWM-OA emotions** [*'absorbed', 'active', 'cheerful', 'encouraged', 'enlightened' and 'inspired'*], *pre-post session at start-, mid- and end-programme. Two emotions, 'absorbed' and 'enlightened', increased pre-post session disproportionately to the others; 'cheerful' attained the highest pre-post session scores whereas 'active' was consistently lowest.*"
- 2.58 Based on the findings, Thomson et al (2018) concluded that **"Museums can be instrumental in offering museum-based programmes for older adults to improve psychological wellbeing over time."**
- 2.59 Smiraglia (2015) examined mood changes in older adults *"related to a single-session object-based museum outreach reminiscence program"*. 114 participants from 12 independent-living retirement communities took part, and quantitative analysis based on survey data was carried out.
- 2.60 The study found that *"Mood scores were found to be significantly higher after the program, and mood changes were significantly related to participants' interest in the program's topic"* and concluded that *"The results of this study support the use of object-based reminiscence in museum outreach to retirement communities, suggesting it may have significant short-term impact on mood"*.
- 2.61 Finally, Dodd & Jones (2014) looked at how museums impact health and wellbeing and presented analysis from 93 participants from a range of smaller museum projects. The study found *"...evidence from the smaller museum projects showed a **significant increase in positive feelings of wellbeing for older people after taking part**"*.
- 2.62 More specifically, *"on average, participants showed higher scores for all six positive emotions on the Positive Wellbeing Umbrella following the session (post-session) compared to before the session (pre-session)...this is very positive as it suggests that the museum sessions improved their feelings of wellbeing. All improvements in positive emotions were highly significant except for the word 'alert' where the small increase was not significant."*
- 2.63 Dodd & Jones (2014) compared these results to data from a national pilot of the Museum Wellbeing Measures Toolkit and *"...found that most of the participants...showed much higher levels of wellbeing both before and after the activities in which they were involved compared to other groups."*
- 2.64 Whilst not a peer-reviewed study, Dodd & Jones was included in, and rated as higher quality by, the Heritage and Wellbeing Report from the What Works Centre for Wellbeing (2019).

Mental wellbeing (dementia)

- 2.65 There are a range of studies that have focused on the impact of museums (notably around reminiscence sessions and object-handling) on the mental wellbeing of people with dementia.
- 2.66 A study carried out by Johnson et al (2015) "*quantitatively compared the impact of two museum-based activities and a social activity on the subjective wellbeing of people with dementia and their caregivers*". Using a quasi-experimental crossover design, the study involved people with early- to middle-stage dementia and caregivers (n = 66) who took part in museum object handling, a refreshment break and art-viewing in small groups.
- 2.67 The quantitative analysis (using mixed-design ANOVAs) "*...indicated **wellbeing significantly increased during the session, irrespective of the order in which the activities were presented. Wellbeing significantly increased from object-handling and art-viewing for those with dementia and caregivers across pooled orders, but did not in the social activity of a refreshment break. An end-of-intervention questionnaire indicated that experiences of the session were positive.***"
- 2.68 Johnson et al (2015) concluded that "*Results provide a **rationale for considering museum activities as part of a broader psychosocial, relational approach to dementia care** and support the use of easy to administer visual analogue scales as a quantitative outcome measure.*"
- 2.69 Camic et al (2017) used a quasi-experimental design involving 80 participants to examine "*the wellbeing impact of handling museum artefacts, by testing for differences across domain, time, gender and stages of dementia*".
- 2.70 The results indicated that "*people with early and moderate impairment showed positive increases in wellbeing, regardless of the type of dementia but those with early stage dementia showed larger positive increases in wellbeing*" and led the authors to conclude that "*We **can feel confident that for most people with early- to middle-stage dementia, handling museum objects in a supportive group environment increases subjective wellbeing** and should be considered part of a health promotion strategy in dementia care*".
- 2.71 An earlier paper by Camic et al (2014) used a mixed-methods approach in the "*first known study that sought to understand the experience of an eight-week art-gallery-based intervention offered at two distinctly different galleries for people with mild to moderate dementia and their carers*". The study involved 24 participants (12 with dementia) and compared similar interventions at a traditional and contemporary art gallery.
- 2.72 Camic et al (2014) found that "*Thematic analysis revealed **well-being benefits from both traditional and contemporary art gallery sites** that included positive social impact resulting from **feeling more socially included, self-reports of enhanced cognitive capacities** for people with dementia, and an **improved quality of life.***"
- 2.73 Eckelaar et al (2012) carried out an exploratory study with 12 participants (6 people with dementia (PWD) and 6 family carers (FC)) that sought to explore "*whether art viewing followed by art making, in an art gallery setting, had an impact on the episodic memory and verbal fluency of people with dementia*".

- 2.74 Eeckelaar et al (2012) found that *"The results suggest that **PWD's episodic memory and verbal fluency improved during the gallery-based intervention. FC corroborated these findings and highlighted their observations of improved mood, confidence, reduced isolation, and a shared experience between FC and PWD during the sessions.** However, the study was exploratory and did not aim to attribute the findings to specific causes. It does however, seem that art viewing, art making, the social context, and shared experience were all important to participants."*
- 2.75 Two seminal examples around dementia are from studies that are not peer-reviewed, but merit inclusion due to the profile these examples and studies have had in the field of museums and people with dementia.
- 2.76 First, a study by Rosenberg et al (2009) about the Museum of Modern Art in New York (MoMA) entitled Meet Me – Making Art Accessible to People with Dementia included an evaluation of the initiative by Mittleman & Epstein (2009). The research sought to *"evaluate the efficacy of the Meet Me at MoMA program for people in the early stage of dementia and their family caregivers"*.
- 2.77 The data analysis for the evaluation was based on 37 persons with dementia and 37 caregivers, and the study design included a variety of measures to gather both qualitative and quantitative data through self-report and observation. Some of the key findings included:
- *"Using smiley faces to elicit information about mood revealed a **statistically significant and substantively visible change in mood in both caregivers and people with dementia...**in fact, the Smiley Face Assessment Scale was the most effective measure in terms of statistical significance of the change observed....both groups clearly improved in mood on this measure, and no one left the Museum less happy than when they arrived."*
 - *"We **measured the self-esteem of the person with dementia and the caregiver** with a ten-item scale. There was little change in self-esteem for caregivers, but there was an **observable positive trend for people with dementia.**"*
 - *"There were **several statistically significant findings from this study**, which is gratifying, considering the small sample of participants. They are **suggestive of the potential of the Meet Me at MoMA program to improve the lives of people with dementia and their caregivers.**"*
- 2.78 Second, National Museums Liverpool (NML) has been running reminiscence programmes since 2000, of which the best known is the House of Memories: Dementia Training Programme. This programme, which is aimed at health and social care works and caregivers, has been evaluated on various occasions, and one of the recent evaluations is by Wilson & Whelan (2014) which looked at the Midlands Model. Key findings included:
- *"The evaluation of House of Memories in the Midlands provides substantial evidence on the impact of the programme on the **personal wellbeing of individual participating dementia carers** (intrinsic value), and their subsequent professional development, via a standardised Dementia Care Impact Measure.*
 - *The training evoked very emotional responses in attendees, which supported them in becoming more aware of dementia as a condition, (its physiology and cognitive deterioration for example). It also had the effect of improving the standard and*

nature of care offered by carers attending the training, and gave attendees a thirst for knowledge on the subject that they were actively pursuing as part of their work. Positive outcomes, across the full sample of 72 participating dementia carers, included:

- *enhanced optimism, confidence and compassion as dementia carers;*
- *advanced knowledge of dementia and of own contribution to improving care standards;*
- *renewed commitment to training and development;*
- *reducing the stigma of dementia and improving dementia care environments."*

2.79 Another study that evaluated a dementia programme was Reawakening the Mind (Gould 2013) which was an evaluation of Arts 4 Dementia's London Arts Challenge in 2012. The programme consisted of arts interventions aimed at re-energising and inspiring people in the early stages of dementia and their carers.

2.80 Looking specifically at the museums projects (which included seven courses) that formed part of the programme, the evaluation captured data from 42 people with dementia (PWD) and 39 carers. In terms of quality of life impacts, results from PWD found: "All strongly agreed that [the project] had **enhanced their lives and were inspired** by the arts setting and creative challenge. 81% of PWD felt that they were reviving creative skills, 71% that they were developing new skills. **90% felt better in themselves, 79% more confident, 69% more energetic and 73% were now keener to socialise** – some had not lost the eagerness to interact."

2.81 Some of the key findings around the themes of Connect; Be Active; Take Notice; and Keep Learning were:

- *"54% of PWD strongly agree, and 36% agree that they will keep in touch with others on their courses*
- *98% of PWD – 76% strongly agree, 22% agree - feel more fulfilled through their creative achievement at LAC projects*
- *78% of PWD – 56% strongly agree, 22% agree – feel more confident through their creative achievement at LAC projects*
- *97% of PWD – 63% strongly agree, 34% agree – see that engaging in arts activity overrides memory worries and that their creative skills are vibrant*
- *100% of PWD – 68% strongly agree, 43% agree – see that continuing arts activity will enrich their lives.*
- *83% of PWD – 51% strongly agree, 32% agree – feel they have learned new skills*

2.82 Notwithstanding these positive examples, it should be noted (as mentioned in Section 1) that there is literature (e.g. Woods et al, 2012) about reminiscence work with people with dementia which both found no difference in quality of life outcomes between intervention and control conditions, and also found significant increase in carer burden, anxiety and stress.

Mental wellbeing (in hospital/healthcare settings)

- 2.83 Finally, in terms of museums and health, there are a range of studies that have looked at the impact of specific museums outreach programmes and interventions that have taken place in hospital settings.
- 2.84 Thomson et al (2012a) assesses the benefits of a heritage-in-health intervention, where *"general healthcare patients participated in one-to-one, facilitated sessions of around 40 minutes that involved discussing factual and emotional properties of a selection of museum objects"*. A secondary aim was to assess whether a *"museum object-related discussion for the experimental group that involved touching and handling the objects (tactile condition) had greater enrichment potential than for the comparison group that involved looking at photographs of the objects (visual condition) within the hospital context"*.
- 2.85 A quantitative assessment of data from semi-structured interviews with 158 participants was carried out, and baseline and intervention self-report measures were used to evaluate the sessions: and *"quantitative comparison of pre- and post-session scores showed significant increases in wellbeing and happiness and an advantage for the tactile condition over the visual condition"*
- 2.86 Thomson et al (2012a) report that *"The study demonstrated **statistically significant overall enhancement of psychological wellbeing...and subjective wellbeing and happiness by ...as a result of museum object handling sessions.**"*
- 2.87 In conclusion, the authors state that *"The evaluation of a heritage-in-health intervention conducted across a range of healthcare contexts suggested that **museum object handling sessions produced beneficial and therapeutic effects on patient wellbeing and happiness, at least in the short term. Similar increases in psychological wellbeing across the three positive emotion scales...implied that findings were not an artefact of the study but represented real improvement over the duration of the object handling session.**"*
- 2.88 Ander et al (2013) *"investigated the impact of museum object handling sessions on hospital clients receiving occupational therapy in neurological rehabilitation and in an older adult acute inpatient mental health service"*. The research involved 82 clients and 8 healthcare staff and used a qualitative approach based on objectivist and constructionist methods *"from which themes typical of the object handling sessions were derived"*.
- 2.89 The main themes that emerged included: ***"distraction and decreasing negative emotion; increasing vitality and participation; tactile stimulation; conversational and social skills; increasing a sense of identity; novel perspectives and thoughts; learning new things; enjoyment and positive emotion"*** and Ander et al concluded that *"Museums and their collections can be a valuable addition to cultural and arts occupations, in particular for long-stay hospital clients"*
- 2.90 A study by Solway et al (2015) *"aimed to further understand psychological and social aspects of object handling in mental health inpatients"*. A series of object handling group sessions with 5-12 participants per group took place with older adults from a psychiatric inpatient ward with diagnoses of depression or anxiety (n=42). A qualitative, thematic analysis approach identified five main themes: *"responding to object focused questions', 'learning about objects and from each other', 'enjoyment,*

enrichment through touch and privilege', 'memories, personal associations and identity' and 'imagination and storytelling'".

- 2.91 Solway et al (2015) concluded that *"This study offers **preliminary support for museum object handling as a group intervention in mental health care with potential to develop therapeutic aspects of the sessions**. Findings indicate that object handling is a novel yet effective intervention with potential for conferring additional advantages by conducting sessions in group settings"*.
- 2.92 Paddon et al (2014) sought to determine the effects of a heritage-in-health intervention on well-being where 57 hospital patients participated in semi-structured, 30–40 minute facilitated interview sessions, *"discussing and handling museum objects comprising selections of six artefacts and specimens loaned from archaeology, art, geology and natural history collections"*. A mixed methods approach used comparison of standard quantitative measures of wellbeing pre- and post-session alongside qualitative investigation through inductive and deductive thematic analysis.
- 2.93 The study found that *"comparison of pre- and post-session quantitative measures showed significant increases in well-being and happiness"* whilst qualitative investigation revealed *"thinking and meaning-making opportunities for participants engaged with objects"*. Paddon et al (2014) concluded that *"Heritage-in-health sessions **enhanced positive mood and social interaction**, endorsing the need for provision of well-being-related museum and gallery activities for socially excluded or vulnerable healthcare audiences"*.
- 2.94 Thomson et al (2012b) looked at enhancing cancer patient wellbeing with a non-pharmacological heritage-focused intervention, through studying adult female inpatients receiving cancer treatment in oncology wards of a large, central London hospital (n=100). The study used *"quantitative measures of psychological well-being with proven reliability and validity...in a pretest/post-test control group, quasi-experimental design"*.
- 2.95 Results showed that *"Levels of **positive emotion, well-being, and happiness were significantly enhanced in the experimental condition compared with the control condition** for both oncology and nononcology patients"* and led the authors to conclude that: *"Findings indicate a future role for heritage-focused practices in enhancing health care environments."*
- 2.96 There are a range of other studies in this area that report similar findings and add weight to the overall literature around this area of museums and health – including: Thomson et al (2016) who evaluated a museum-object handling intervention for older adults in health care settings, and found that *"Positive affect and wellness increased significantly in acute and elderly and residential care though not psychiatric care whereas negative affect decreased and happiness increased in all settings. Examination of audio recordings revealed enhanced confidence, social interaction, and learning."*, as well as Chatterjee et al (2009a); Chatterjee et al (2009b); and Thomson et al (2011).

3. MUSEUMS AND COMMUNITIES

Overview of Museums and Communities

- 3.1 The literature around museums and communities supports the contribution and impact of museums for the main areas around the national indicators (i.e. 'perceptions of local area', 'loneliness', 'places to interact' and 'social capital').
- 3.2 Given the overlap between these concepts/indicators, much of the literature shows contributions to all aspects – most notably between social capital and each of the other aspects.
- 3.3 In addition, it should be noted that some of the well-being impacts reported in Section 2 about individual health and mental wellbeing have a community perspective, i.e. there is an individual and community impact of the role of museums in a variety of ways. As such, some of the studies referred to below were also included in Section 2 – but the focus in this section is on the community impacts identified in the studies rather than the individual health/wellbeing impacts – which were covered in Section 2.
- 3.4 As noted in Section 1, there is good evidence from the literature about the impact of museums in terms of community, and this related to both specific initiatives and interventions – i.e. programmes and activities delivered by museums (both museum-based and via outreach) but also to general museum visiting/engagement.
- 3.5 The literature drawn on encompasses evidence from studies that have adopted various methods – including quantitative studies of large-scale surveys; quantitative studies of research; specific quantitative, qualitative, and mixed-methods studies of both general museum engagement and specific museum activities and programmes; as well as smaller scale qualitative studies using various approaches. The range of studies and variety of methods and approaches adopted helps to show the breadth and depth of literature in this area. It should be noted however, that much of the literature around these communities' aspects rely on in-depth, qualitative approaches rather than large scale quantitative approaches, especially around loneliness and social isolation.
- 3.6 The evidence includes examples at the UK-level (which therefore includes Scotland), alongside specific examples from within Scotland – as well as specific examples from within the UK which are relevant to museums in Scotland. In addition to which any international examples included relate to activities that take place in Scottish museums – showing that they are appropriate for inclusion in this review.

Key Examples – Museums and Communities

Addressing loneliness and social isolation

- 3.7 Examples of studies that have considered the impact of museums in terms of addressing loneliness and social isolation include the following.
- 3.8 Morse et al (2015) has already featured in the museums and health section, however, their findings are equally of relevance to museums and communities. As noted previously, they had a total of 144 participants and using a mixed-methods approach "*examined the effects of museum outreach sessions on confidence, sociability and*

wellbeing measures for mental health (n=85) and addiction recovery (n=59) service-users”.

- 3.9 Reflecting on the findings, the authors note that *“Quantitative analyses showed highly significant effects of all measures taken after the first, middle and last attendance, **supporting the hypothesis that confidence, sociability and wellbeing would improve significantly over the courses of sessions...**Differences between first, mid and end time-points were highly significant suggesting that, on average, participants benefited over the duration of the projects”.*
- 3.10 The paper concludes that: *“**Creative museum activities showed increases in participant levels of confidence, sociability and wellbeing.**”* Furthermore, *“the mixed-method data showed that participant levels of confidence, sociability and wellbeing improved over the course of the museum sessions...”* although Morse et al (2015) do note that *“it is not clear to what extent the nature of the museum-focused activities or participation in a collaborative creative process produced gains above that of being part of a group.”*
- 3.11 Todd et al (2017) examined *“how museum programmes create opportunities to enhance health and wellbeing and mitigate the experience of social isolation in older adults”.* Similar to some of the studies under the museums and health section of this report, Todd et al (2017) also consider wellbeing, but also dealt with addressing social isolation.
- 3.12 Adopting a qualitative approach and a grounded theory methodology, *“a total of 20 participants were sampled across age, ethnicity, previous museum attendance, educational attainment, mobility levels and most recent healthcare visit. Each participant provided multiple data sources that included end of program interviews...3-month follow-up interviews...and weekly “passports” (diaries).”*
- 3.13 The study found that *“Four explanatory components were identified (interacting social context, museum as a positive enabler, individual journey and relational processes) illustrating how **museum programs and the physical place of a museum created opportunities for wellbeing and social inclusion**”.*
- 3.14 Of particular relevance to social inclusion, the component of interacting social context noted that *“Museums provided a background context in which programs operated, influencing group experience and enhancing the potential for change”,* and various aspects of this were highlighted – evaluating self and others; communicating; social engagement; and sharing experiences. In summary, the authors highlighted that *“**As part of public health initiatives, museum-based programs can help reduce isolation and loneliness.**”*
- 3.15 Overgaard & Sørensen (2015) discuss two projects that took place during 2012-15 in a Danish museum, where the intention was to *“study how the museum space can contribute towards an inclusive environment that stimulates the creation of communities between socially lonely people”.*
- 3.16 The projects were an art workshop for mentally vulnerable adults who were often stigmatized and therefore felt socially excluded; and a reminiscence workshop for lonely elderly people in which the participants talked about their own life-experience and discussed the influence particular art had had on their family and on social culture in Copenhagen. The studies were carried out as ethnographic studies using participant observation during workshop activities and conducting interviews, and a total of

seventeen people participated in two separate art courses whilst nineteen participants completed the course (resulting in a total of 36 participants).

- 3.17 The way in which the activity was delivered was also noteworthy, with the authors stating: *"By way of interviews, we can also show that **workshop participation was meaningful to the group in that it helped them break free from their isolation and helped them to feel part of a social community.**"*
- 3.18 Overgaard & Sørensen's (2015) closing remarks state that *"The studies show that, by entering into relations with other participants, museum staff and the researcher, the participants experience a fuller daily life. We found that people who participated in these types of projects experienced a meaningful sense of belonging to the museum. They entered into new friendships based on a shared interest in creating art in a familiar social community. The companionship they experienced with other participants and the museum's staff brought a sense of purpose to their lives, and in interviews **many of the project participants indicated that their feelings of loneliness lessened during the course.** The participants from the reminiscence project experienced that by sharing reminiscences they gained new perceptions of themselves as well as more self-worth."*
- 3.19 Another article which has already featured in the museums and health section, but which also examined the impact on social inclusion, was Camic et al (2014). The study involved 24 participants (12 with dementia) and adopted a mixed-methods pre-post design using standardised questionnaires and interviews to examine *"the impact on social inclusion, caregiver burden and quality of life and daily living activities for the person with dementia"*.
- 3.20 Camic et al (2014) found that *"Thematic analysis revealed well-being benefits...that included positive social impact resulting from **feeling more socially included**, self-reports of enhanced cognitive capacities for people with dementia, and an **improved quality of life**"* and concluded that *"The **interventions at both galleries helped to foster social inclusion and social engagement**, enhance the caring relationship between the carers and PWD, support the personhood of PWD, and stimulate cognitive processes of attention and concentration."*

Places to interact and perceptions of the local area

- 3.21 On places to interact and perceptions of the local area, seminal work from Newman (Newman & McLean (2004); Newman, McLean & Urquhart (2005); and Newman & McLean (2006)), highlights the role that museums and museum outreach programmes can play.
- 3.22 All three of the papers were based on research which captured the experiences around four activities – visitors to two exhibitions and two community development projects in Glasgow and Newcastle-upon-Tyne. All the papers adopted a qualitative analysis based on a mix of methodologies – interviews, focus groups and questionnaires. Whilst not explicitly stated, adding up the number of participants across the various methods suggests that there were more than 50 participants (excluding staff, organisers, and stakeholder interviews).
- 3.23 The paper by Newman, McLean & Urquhart (2005) aimed to *"attempt to determine the role of museums in combating social exclusion through facilitating active citizenship"*.

- 3.24 A range of outcomes from participant engagement in the community projects, as well as the exhibitions, were identified: "*Despite the difficulties associated with living in a place like Pollok, respondents, as a result of being involved in the museum project, became very proud of where they lived.*"; "...participation in the community development projects **increased self-esteem** associated with other aspects of identity resulting in **greater motivation and confidence**"; and that the "*evidence indicates that the **community development projects and exhibitions did have a positive impact upon participant's identity and self-esteem** providing them with the capacity to become active citizens*".
- 3.25 Given these impacts, Newman, McLean & Urquhart (2005) concluded that "*museums were able to overcome many of the barriers to active citizenship that were identified*" and emphasised that the "**most significant contribution of museums in developing active citizens was to provide a context for constructing a sense of identity and so develop greater self-confidence**".
- 3.26 In summary, the authors noted that it was clear "*...that museums can provide the context and environment for active citizenship, such as developing confidence and self-esteem and learning transferable skills*" and they also highlighted that "*The findings also point up the role of community based development projects and outreach*".
- 3.27 Newman & McLean (2004) analysed "*the results of a research project that aimed to determine the ability of museums to ameliorate the effects of social exclusion*", and in this case the results of the project were analysed using the constructs of human, social cultural and identity capital.
- 3.28 They found that there were a range of social benefits for the visitors to the exhibitions and the participants in the community development projects. Of relevance to the theme of perceptions of the local area, the paper states that "*One of the **most significant impacts was that the project gave the respondents greater pride in the area.***"
- 3.29 The paper used the various constructs of capital (including social capital), to identify a number of themes in the data. Of particular relevance to this review, "*The first theme identified in the data was that **visitors to the exhibitions and participants in the museum-based community development projects were able to develop knowledge, skills and competences from that experience.***". In addition, a second major theme "*was that **visiting the exhibitions and participating in the community development projects evaluated facilitated social links and networks in a number of different ways***", whilst a recurring theme in the data "*was the ability of the exhibitions and community development projects to **make the participants and visitors feel more positive about themselves***".
- 3.30 Other literature has identified that projects involving specific community groups can help change people's perceptions of that community. A key example of this (albeit non-peer reviewed) is from an evaluation of the Veterans Reunited Programme carried out by Morris Hargreaves McIntyre (2006).
- 3.31 The Veterans Reunited Programme brought together different generations in the UK to commemorate the 60th anniversary of the end of the Second World War. The programme was made up of three programme strands, which between them reached over 11 million people. Museums formed a key part of the programme.

- 3.32 The evaluation used a mixed methodology and had a total sample of 1,072 people (and 67 organisations) for the various primary research methods used (including self-completion surveys, focus groups, depth interviews, case studies, diaries, evaluation forms, workshops).
- 3.33 Some of the key evaluation findings – in relation to community and social impacts in particular were as follows:
- *Generic Learning Outcomes: 83% of people who took part in the programme learned more about the Second World War; 81% developed deeper knowledge and understanding; 78% felt the experience gave them enjoyment, inspiration or creativity; 64% experienced progression in either activity or changed their behaviour; **61% changed their attitudes or values; 51% of people experienced a societal level impact; 39% developed new or better skills.***
 - *Personal development: As a result of engagement with Veterans Reunited, many people have reflected on who they are as individuals and how they connect with others; their peers, families, communities and the wider world: **42% of people now feel differently about themselves...**Veterans particularly feel better about themselves and more a part of their communities: **82% feel more respected or have pride in their contribution; 58% have a fuller appreciation of themselves, of their achievements and of their relationship to and identity with their communities; 57% feel differently about being a veteran; 39% feel differently about themselves and their abilities.***
 - *Societal impact: These personal outcomes made an impact at a societal level for 2.5 million people, of whom: **46% feel differently about other groups of people / their community (1.2m people); 36% of people feel differently about where they live or the UK generally (0.9m people); 14% have a more positive appreciation of diversity and a deeper understanding of people of different ages, races, religious experiences and backgrounds to themselves (0.4m people); 10% feel they have a greater respect for other people (0.3m people).***
- 3.34 MHM (2006) reflected that “*These outcomes create **greater community cohesion and social inclusion***”.

Social capital

- 3.35 The overlap between the sub-themes under museums and communities means that various aspects of social capital have already been identified in the literature already outlined in this section – for example, the work by Newman et al (2004, 2005) identified various aspects of social capital that are as relevant here as they are in the earlier section. As such, various aspects of social capital have already been dealt with in this section.
- 3.36 One additional, notable area around social capital for museums relates to the role of volunteering and museums. As the review carried out by Taylor et al (2015) noted: “*The most obvious way in which MLA [museums, libraries and archives] promotes social capital is through the use of volunteers.*”
- 3.37 The examples below show both the contribution of museum-based volunteers to various aspects of social capital, but also highlight the positive role of engagement with museums and culture in relation to levels of volunteering.

- 3.38 A notable example of the impact of volunteering in museums comes from work carried out between 2013 and 2016 by IWM North and Manchester Museum – the Inspiring Futures: Volunteering for Wellbeing programme, which involved 10 museums and galleries in Greater Manchester, and sought to “*to collectively achieve improvement, consistency and quality in volunteering practice as a key route to transforming wellbeing*”.
- 3.39 The project trained and supported 231 participants from Greater Manchester into volunteering positions within museums and “*Participant recruitment was aimed at people who were long term unemployed or facing low-level mental wellbeing challenges and/or social isolation*”.
- 3.40 The method for the evaluation adopted a wide ranging mixed-methods approach which included consulting with the volunteers; visitors; venues; local statutory and non-statutory support services; volunteers’ relatives. Specifically on volunteers, it included: in-depth interviews with 40 volunteers; group consultations with 105 Volunteers; observed participant behaviour; quantitative survey with 60 learner volunteers; and a quantitative longitudinal survey with 40 alumni.
- 3.41 The report highlighted that the evaluation “*has demonstrated significant improvements in participants’ mental and emotional health. It has led to improvements in their creativity, aspirations, life satisfaction, social connections and reductions in stress*”. It also found that the programme had “*led to increased levels of volunteering and citizenship, changed attitudes to museums and heritage settings, and attitudes to participating in volunteering projects.*”
- 3.42 The key findings included: over **75% of volunteers reporting a significant increase in wellbeing after a year** and almost **60% report long term sustained wellbeing improvement** over 2-3 years, with 30% gaining employment or other new opportunities for getting into work.
- 3.43 Of particular relevance to the museums and communities theme, “*The research suggests that there are key benefits of volunteering in museums. In particular, participants’ interaction with visitors and with the museums’ collections leads to a strong sense of connectedness; participants feel connected to the local stories that are told in the museums. This connection to human experiences appears to lead to improved self-awareness, belonging, imagination and ability to relate better to others. Ultimately it can help improve social relationships for the participants.*”
- 3.44 Finally, whilst not peer-reviewed, the findings from a study by MHM (2015) about the scope, scale and impact of volunteering in museums and galleries in Scotland is worth highlighting given their relevance.
- 3.45 This study used a mixed-methods approach which involved the use of three quantitative surveys (museum directors (70 replies), volunteers (134 replies) and paid staff (38 replies)), as well as qualitative research through focus groups and telephone interviews.
- 3.46 One of the findings from the study of direct relevance to this review is in terms of the importance of social outcomes for volunteers: “*Nearly all volunteers felt that volunteering in a museum or gallery had been an enjoyable experience. A strong theme from the research was the importance of the social and ‘people’ elements of the volunteering experience. This included meeting and working*

with others and interacting with the public. For those who were retired, volunteering provided a replacement workplace, in particular the elements of camaraderie and team spirit which many missed."

- 3.47 Drawing on some of the key findings, it is clear the various aspects of social capital that volunteering in museums in Scotland has directly for the volunteers themselves:
- **"49% of volunteers agreed that volunteering at the museum/gallery had improved their social life**
 - **72% of volunteers agreed that volunteering at the museum/gallery had made them feel more part of the community they lived in**
 - **44% of volunteers agreed that volunteering at the museum/gallery had increased their self confidence**
 - **33% of volunteers agreed that volunteering at the museum/gallery had improved their mental health**
 - **62% of volunteers agreed that volunteering in general promotes wellbeing"**
- 3.48 Results from across the quantitative research surveys found that:
- **"91% of volunteers and 84% of paid staff and directors agreed that volunteering contributed to deepening the connections between museums and communities**
 - **62% of volunteers and 70% of paid staff and directors agreed that volunteering contributed to promoting wellbeing**
 - **86% of volunteers and 74% of paid staff and directors agreed that volunteering contributed to developing stronger communities, by providing opportunities for people to socialise and support their local community".**
- 3.49 As well as the impact of museum volunteers, the literature also identifies the positive role of engagement with museums and culture in relation to levels of volunteering.
- 3.50 Research by the National Endowment for the Arts (2009) in the USA looked at the patterns of civic and social engagement by art-goers (including those who visit art museums or galleries).
- 3.51 The research used a large-scale public participation survey (the 2008 Survey of Public Participation in the Arts (SPPA) – a supplement to the U.S. Census Bureau's Current Population Survey. Achieving a response rate of 82% the 2008 SPPA drew from a sample of more than 18,000 U.S. adults ages 18 and older).
- 3.52 The study found that *"Americans who attend arts performances, visit art museums or galleries, or read literature are particularly active members of their communities"*. More specifically, it found that: **"...more than half of all adults who attended art museums or live arts events said they had volunteered at least once in the past year."**
- 3.53 Some of the main conclusions from the report included: **"...adults who attend art museums, art galleries, or live arts performances are far more likely than non-attendees to vote, volunteer, or take part in community events"** and *"their relatively high rates of volunteerism continue to prevail, even after adjusting for the effects of education, gender, age, parental status, and other demographic factors."*

- 3.54 Of particular relevance to this review, the study also found "*...the volunteer rate for art museum visitors was 58 percent—a rate more than double that of adults who did not visit art museums. (Art museum visitors are adults who visited art museums or galleries in the past 12 months.)*"
- 3.55 A UK study by Bennett & Parameshwaran (2013) "*applied multi-level modelling techniques to the Understanding Society dataset to evidence how cultural engagement among 10–15-year-olds shapes other types of civic engagement*".
- 3.56 The research used data from Wave 2 of Understanding Society to provide "*the first comprehensive analysis of the factors predicting the frequency of volunteering among 4,760 youths aged between 10 and 15 years in the UK*".
- 3.57 Data collected in 2010 and 2011 from Wave 2 of Understanding Society was used, and this contains a large nationally representative sample of young people, who completed a youth survey. The data capture self-reported demographics, attitudes, and behaviours of respondents, including questions on family background and civic activities. The sample used consisted of 4,760 in 3,626 households.
- 3.58 Bennett & Parameshwaran (2013) found that "*significant differences across social classes in the likelihood of volunteering. Higher classes are more likely to be engaged than lower classes. However, **social class effects become insignificant in the model once social and cultural capital measures are included.***"
- 3.59 They identified that their "***composite measure of youth cultural capital has the largest and most significant positive effect, suggesting that youths who are high in cultural capital are also more likely to volunteer.***"

4. MUSEUMS AND EDUCATION

Overview of Museums and Education

- 4.1 The literature around museums and education provides evidence to support the contribution and impact of museums for the specific national indicator around educational attainment, with various studies identifying the impact that museums can have on educational attainment and achievement.
- 4.2 In addition, there are other aspects where museums can have an impact on education beyond attainment – for example, on attitudes to learning, interest in learning, motivation to learn, and being inspired to learn as well as understanding of the subject and attendance.
- 4.3 As noted in Section 1, there is good evidence from the literature about the impact of museums in terms of education – although it is acknowledged that some of it is drawn from non-peer-reviewed sources (such studies were typically commissioned research and evaluations by government departments and national organisations and were detailed and substantial research studies and as such are deemed worthy of inclusion).
- 4.4 The impact of museums on education is in relation to both specific initiatives and interventions – i.e. programmes and activities delivered by museums (both museum-based and via outreach) but also to general museum visiting/engagement. However, it should be noted that much of the literature identified is about the impact of specific initiatives that have boosted the capacity and capability of museums to engage with schools, and much of it relates to guided learning/museum-led sessions rather than general museum visiting/engagement.
- 4.5 The literature drawn on encompasses evidence from studies that have adopted various methods (including quantitative studies of large-scale primary research; specific quantitative, qualitative, and mixed-methods studies of specific museum activities and programmes; as well as smaller scale qualitative studies using various approaches) – showing the range and diversity of the type of evidence that underpins the literature used.
- 4.6 The evidence includes examples at the UK-level (which therefore includes Scotland), alongside specific examples from within Scotland – as well as specific examples from within the UK which are relevant to museums in Scotland. In addition to which any international examples included relate to activities that take place in Scottish museums – showing that they are appropriate for inclusion in this review.
- 4.7 Many of Scotland’s museums work with school-aged children – across the full spectrum of primary, secondary and further education. As such, the examples below are very likely to apply to the education activities of Scotland’s museums. Whilst some of the evidence is drawn from evaluations of specific education programmes elsewhere, it is thought that the literature findings are transferable to the types of education activities and programmes that Scotland’s museums typically deliver.

Key Examples – Museums and Education

- 4.8 Many of the studies included here looked at both educational attainment and achievement and also other aspects of education – e.g. interest in learning, attitude to learning, motivation, inspiration, understanding etc. and therefore most of the

- studies included contribute to education achievement as well as others aspects of education.
- 4.9 The first studies featured draw from a range of work carried out by academics at the Research Centre for Museum and Galleries.
- 4.10 Watson et al (2007) looked at the impact of museum visits on the attainment of secondary pupils in the east of England. In particular, the research *"...sought to investigate the impact that museums in the East of England region have on the attainment of secondary-age pupils completing an assessed piece of work as a result of their museum visit"* with all the sessions planned and facilitated by professional museum staff.
- 4.11 There were six museums and nine schools involved in the research study – the schools provided assessment marks for their pupils and, in most cases, pupils and teachers completed questionnaires at the end of their museum visit: *"In total, assignment marks for 762 pupils were provided by the schools and 451 pupils completed a questionnaire about their learning experiences immediately after their museum visit."*
- 4.12 The authors note that *"the evidence obtained has helped us to understand more about the impact that museums can have on the attainment of secondary age pupils"* with a key achievement highlighted in the report being ***"Museums have a positive impact on attainment - 60% of pupils in this study achieved a higher mark for their assessed piece of work after a museum visit when compared to three previous assignment marks"***.
- 4.13 In addition, the study also found that: *"Over 90% of pupils agreed that they had enjoyed their experience and that they had discovered some interesting things from the visit... **89% felt that the museum was a good place to learn in a different way from school, whilst 85% agreed that the visit had given them a better understanding of the subject. A very positive 84% of pupils could make sense of most of things they did at the museum, and 78% of pupils felt more inspired as a result"***.
- 4.14 Furthermore, *"...**71% also agreed that they had left the museum more interested in the subject than when they came...the museum content, although pitched at pupils of various abilities, was suitable for most pupils to understand and make sense of. An overwhelming 85% of pupils agreed that they could make sense of most of the things that they saw and did at the museum"***.
- 4.15 A study entitled 'Inspiration, Identity, Learning: The Value of Museums' by Hooper-Greenhill et al (2007) evaluated a national/regional museum partnership programme in England.
- 4.16 The 2006-7 evaluation included a survey of teachers (n=407) and a survey of pupils (n=7,253) (as well as other primary research). The report was also able to draw on three previous evaluation reports (some of which are featured elsewhere in this section) so the findings were able to draw on questionnaires from almost 3,600 teachers and more than 64,000 pupils.
- 4.17 The evaluation's findings included the fact that *"A strong emphasis was found in the museums in the...programme on working towards **social inclusion**"*. In addition, it noted that there was ***"strong evidence of powerful learning outcomes for pupils"***.

- 4.18 The evaluation found that the vast majority of pupils of all ages (over 90%) enjoy their museum visits and think they have learnt something. The study noted that *"Older boys are surprisingly enthusiastic about their museum experience: 89% agreeing that they had enjoyed it; 60% saying they had been inspired ; 90% agreeing that they had discovered some interesting new things"*.
- 4.19 Looking specifically at younger pupils (Key Stage 2 and below – i.e. aged under 11), the study found that: *"92% enjoyed using the museum; 92% learnt some interesting new things; 82% could understand most of the things they saw and did; 87% said working with the museum was exciting; 72% said it had given them lots of ideas for things they could do; 75% reported that what they learned will be useful for other things; and 77% wanted to find out more."*
- 4.20 For older pupils (Key Stages 3,4, and 5 – i.e. aged 11 to 17) the evaluation reported: *"91% enjoyed the day; **61% said that working with the museum has been very inspiring for them**; 91% discovered some interesting things; **82% feel they have a better understanding of the subject**; 70% reported it was a good chance to pick up new skills; for 65% using the museum was a good chance to learn in new ways they had not considered before; 84% said they could make sense of most of the things they saw and did; 68% would like to do this again; and **58% are now much more interested in the subject than when they started.**"*
- 4.21 As well as the impact reported by pupils, teachers *"continue to value the inspirational quality of museum work because it **enables their pupils to better understand their subject**"* with specific findings including: *"...99% of teachers think their pupils enjoyed the museum experience; 94% of teachers think their pupils will have gained subject-related facts; 82% of teachers think the museum experience is likely to influence classroom teaching; 94% of teachers think their pupils are likely to have developed thinking skills and 89% communication skills; 94% of teachers think museums will enable their pupils to feel more positive about learning."*
- 4.22 An earlier study by Hooper-Greenhill et al (2004) evaluated the impact of the Renaissance in the Regions Education Programme, which was intended to help with the *"development and improvement of the learning and education potential of museums."*
- 4.23 This mixed-methods evaluation, which looked at the early phases of the programme, involved primary research – quantitative data was collected via questionnaires with both teachers (936 participants) and pupils (20,604 participants) and qualitative data via focus groups and interviews.
- 4.24 In terms of results from the teacher survey, the study found that *"very high numbers of teachers in the study regarded museums as very important (58%) or important (37%) to their teaching....56% of teachers thought that they would be exploring new ideas with their pupils, and 52% expected creative writing as an outcome....Learning about a subject was regarded as the most likely knowledge-related outcome by teachers, with 73% thinking it very likely that pupils would have gained subject-specific facts as a result of the museum visit."*
- 4.25 Furthermore, *"over half of the teachers in the study were confident that the museum visit would have been very likely to have **increased the positive feelings of their pupils towards learning (51%)** and towards museums and galleries (51%).... teachers were enthusiastic about increased subject-related understanding with 71% judging that this would be very likely. **49% of teachers thought increased***

motivation to learn was very likely....over half of the teachers (53%) thought it was very likely that thinking skills would have been increased as a result of the museum visit."

- 4.26 Perspectives from the pupils reinforced these findings, drawing on the 20,604 pupils who completed the questionnaires which asked about their response to the visits they had just completed. Of the 17,198 younger pupils (aged 6-11 years), "94% agreed that they had enjoyed the visit, 90% agreed that they had learnt some new things and 87% agreed that a visit was useful for school work."
- 4.27 Of the 3,406 older pupils (aged 11-18 years) "...87% agreed that they had learnt some interesting things from their visit, and 82% agreed that museums are good places to learn in a different way to school. 73% of the pupils agreed that the visit had given them lots to think about. It is very pleasing to see that **over half the older pupils (58%) agreed that a museum visit makes schoolwork more inspiring.** And over half of the respondents (55%) agreed that they might visit again."
- 4.28 The report concluded that "*the pupils' evidence supports the evidence from the teachers very strongly. Both teachers and pupils agree that museums are **inspiring places to learn in new ways that stimulate increased interest in learning.** Curiosity is awoken, and this stimulates enquiry and search for information. The multiple teaching methods used effectively by museum staff combined with learning from objects in a new, rich and unexpected environment enable the vast majority of pupils to find something in which to take an interest, and at which to succeed as a learner. The result is an increased feeling of self-worth and an increase in positive learner identities.*"
- 4.29 These findings were reinforced by a further study carried out by Hooper-Greenhill et al (2006) which evaluated the programme at a later stage.
- 4.30 Dodd et al (2002) assessed the impact of The Open Museum initiative in Glasgow. As noted in the report, The Open Museum was an innovative project which aimed "to take museum collections out to those communities which the museums were failing to reach. This was The Open Museum, which began as a pilot project in 1990".
- 4.31 The method for the consultations carried out was a combination of 8 in depth face to face interviews with key staff and teaching/community professionals and 8 interviews with project participants supported by further telephone interviews – a total of 23 consultees.
- 4.32 The study identified a range of outcomes – many of which fit within the health impacts set out in Section 2 (e.g. self-esteem, self-confidence), and the community/social impacts set out in Section 3 ("*...feel less marginalised, less insignificant, less unheard. These increased feelings of self-worth will affect whatever else they choose to do.*"). In addition, the museum "*...enabled a process of transformation to take place in these individuals; a process that has impacted on individuals' knowledge, skills, behaviour, attitudes, life condition, and their status*".
- 4.33 In terms of specific education and learning impacts, the report noted under the heading of 'Enhancing formal and informal learning': "*In relation to learning, **engagement with objects led to very concrete outcomes.** In many examples, use of museum objects led to not only **higher levels of interest and motivation** but also **tangible improvements in written work, more exciting practical work and improved examination grades.**"*

- 4.34 Arts Council England commissioned an evaluation of the Museums and Schools Programme (SQW (2018)). The programme was established in 2012, and whilst *"originally set up with ten partnerships, there are now 14 partnerships that have been established through the programme. Each involves museums working closely with local schools to provide quality engagement opportunities for pupils."*
- 4.35 The evaluation involved a mix of methods including case studies, interviews as well as a survey of schools which received 149 responses.
- 4.36 The findings from the school survey included: **"overwhelmingly positive views on the learning impact statements for children proposed in the survey"**. Examples included: *"...100% of respondents either strongly agreed or agreed that **activities were relevant to the curriculum** (146 respondents), provided **positive learning experiences** (146) and provided an authentic learning experience (147)"* and *"...100% of schools responding either strongly agreed or agreed that **pupils responded positively to learning in a different environment** (147) and pupils enjoyed the activity (144)"*.
- 4.37 A social impact programme assessment was carried out by AEA Consulting (2005) on behalf of Tyne and Wear Museums and Bristol Museums, Galleries and Archives. The aim was to assess the social impact of various programmes delivered by the museums.
- 4.38 The evaluation of the programmes included questionnaires of a sample of participants (n=63, accounting for around 10% of all participants), and key findings in terms of social impacts were: **"95% - learned anything new; 88% - increased confidence; 88% - increased pride in culture and traditions; 85% - increased desire to learn; 83% - explore ideas, values and dreams; 79% - made friends; 77% - inspired creativity; 65% - developed skills; 64% - positively impacted health and wellbeing"**.
- 4.39 The Manchester Museums and Galleries Partnership in Education (MAGPIE) programme ran from 2004 to 2010. The partners shared aims for the programme were *"to enable collaborative ways of working to develop between classroom and museum and gallery professionals and to raise attainment in writing at Key Stage 2."* The project was evaluated by Stanley (2006 and 2008) and reviewed by MLA Renaissance North West (2011).
- 4.40 The evaluations found overall that **"the MAGPIE programme achieved an increase in pupil attainment in writing that was 35% greater than nationally set expectations for progress. In fact the impacts of the programme were much wider in terms of developing emotional and social skills and positive attitudes to learning including confidence, motivation and inspiration"** (Stanley 2006).
- 4.41 Furthermore, *"58% of Head Teachers questioned during the evaluation process reported that MAGPIE had improved pupil engagement in writing and 74% of Head Teachers believed that it had led to a more cross curricular approach to writing"* (Stanley 2008).
- 4.42 According to Stanley (2006) quoted in by MLA Renaissance North West (2011), pupils involved in museum and gallery literacy activities through the MAGPIE programme have:
- *"Enhanced the **quality of their writing** through hands on, real life experience and language development"*

- **Improved their speaking and listening skills**, leading to improved writing across a variety of subject areas and age groups but with particular success in Early Years
 - Written at a greater length and with **improved levels of concentration** - teachers felt that the museum and gallery sessions provided the children with a context and purpose for writing and exciting visual and written material to write about
 - Increased enjoyment of the curriculum and willingness to experiment with new ideas and techniques - **teachers felt that MAGPIE fed positive attitudes to learning, improved children's confidence to share ideas and contribute to discussion**".
- 4.43 Bemberger et al (2008) sought to "...describe and understand the range of outcomes of class visits to natural history museums". The study used semi-structured interviews with 50 students (grades 6 to 8 – i.e. aged 11 to 14) on the day following the visit.
- 4.44 The authors found "evidence that students expressed several learning outcomes, connected directly and indirectly to the scientific content of the visit", and identified 'content-oriented outcomes' that included "acquiring scientific knowledge and making connections to prior knowledge"; 'social-oriented outcomes' "regarding communicating knowledge and social aspects of learning"; and 'interest-oriented outcomes' "evidenced by students' expressions about emotions, interest and curiosity".
- 4.45 Using a sample of 96 secondary school students, who took part in two different versions of a guided tour at a museum in Germany, Stavrova & Urhahne (2010) examined "the nature, conditions, and outcomes of student learning from an organised guided tour in the Deutsches Museum in Munich" and found that "Participation in both programs resulted in student knowledge gains".
- 4.46 The authors concluded that "the present study contributed to museum learning research in several ways. First, it provided **further evidence of student cognitive learning from organised museum visits**. Second...**providing more opportunities for group work or supporting active student participation, can significantly improve student motivational and emotional states** during the visit **and are successful in promoting student understanding**. Third, the results provide further insights into factors influencing student museum learning: thus, specific emotional states, and namely, anger experienced during the visit, were found to explain student learning outcomes when other previously established predictors are considered."

5. MUSEUMS AND CHILDREN

Overview of Museums and Children

- 5.1 The evidence around museums and children (excluding the aspects linked to education dealt with in the previous section) is an area where there seems to be a very limited amount of peer-reviewed literature on the impact of museums, especially when looking for literature specifically around the key national indicators identified (i.e. 'child social and physical development' and 'child wellbeing and happiness').
- 5.2 Given that the national indicator on child social and physical development relates to an assessment of children at their 27-30 month review, there does not seem to be any literature on the impact of museums on children of this age in terms of their social and physical development.
- 5.3 Much of the impact of museums on children is captured in the education aspects set out in the previous section (Section 4), which not only relate to attainment and achievement but other aspects around attitude/motivation/interest around learning for children. So, whilst there are examples of the impact of museums on learning (including attitudes, motivation, understanding, interest, etc.) these relate to school-age children.
- 5.4 In relation to child wellbeing and happiness – whilst Section 2 has identified literature which clearly shows the impact of museums on health and wellbeing, this is very much focused on adults – with much of the research (primary or secondary) in the literature either involving adults or using secondary data about adult wellbeing and health – either in general, or on specific groups/types of adults. As such, it is difficult to use this evidence to support any impact of museums on child wellbeing and happiness – especially as defined by the relevant national indicators around children.
- 5.5 As such, there is very little (if any) relevant additional literature to include in this section.
- 5.6 This, of course, does not mean that museums do not offer activities around these national indicators, simply that there is little (if any) literature about the impacts of such activities. Therefore, this is clearly an area that would require further research to identify the impact of museums directly in relation to the national indicators around 'child social and physical development' and 'child wellbeing and happiness'.

Example – Museums and Children

- 5.7 One example from the literature around museums and children related to social and physical development is from Polinsky et al (2017) which looked at **using children's museums to bolster spatial reasoning**. However, it looked at four-year olds, and so does not directly link to the national indicator on development noted above.
- 5.8 In particular, the study involved 104 child and 111 parent participants and sought to assess whether "*short naturalistic, spatial language interactions also evoke improved spatial performance*". Parents were asked to interact with their child at a block wall exhibit in a children's museum.
- 5.9 According to the authors, the results indicate that "*a short spatial language interaction, including shape- or goal-language, can encourage greater spatial language production*

by parent-child dyads and improve children's subsequent puzzle performance. Engaging with children through guided play, while emphasizing spatial terms and relationships, improves their performance after a delay on a repeated puzzle".

APPENDIX 1: REFERENCES – SPECIFIC EXAMPLES FROM LITERATURE

- AEA Consulting (2005) Tyne & Museums Bristol Museums, Galleries and Archives. Social Impact Programme Assessment. Newcastle. Tyne & Wear Museums.
- Ander, E. E., Thomson, L. J., Blair, K., Noble, G., Menon, U., Lanceley, A., & Chatterjee, H. J. (2013). Using museum objects to improve wellbeing in mental health service users and neurological rehabilitation clients. *British Journal of Occupational Therapy*, 76(5), 208-216.
- Art Fund (2018) Calm and collected. Museums and galleries: the UK's untapped wellbeing resource? Art Fund The role of museums and galleries
- Arts Council England / SQW (2018) Evaluation of the Museums and Schools Programme, Report for Arts Council England, June 2018 SQW
- Bamberger, Y. & Tal, T. (2008). Multiple outcomes of class visits to natural history museums: The students' view. *Journal of Science Education and Technology*, 17(3), 274-284.
- Bennett, M and Parameshwaran, M, *What factors predict volunteering among youths in the UK?*, Third Sector Research Centre, 2013
- Binnie, J. (2010) Does Viewing Art in the Museum Reduce Anxiety and Improve Wellbeing? *Museums & Social Issues, Volume 5, Number 2. 191-201*
- Bygren LO, Konlaan BB, Johansson S-E. Attendance at cultural events, reading books or periodicals, and making music or singing in a choir as determinants for survival: Swedish interview survey of living conditions. *BMJ*. 1996;313(7072):1577-80. doi: 10.1136/bmj.313.7072.1577.
- Bygren, L. O., Johansson, S-E., Konlaan, B. B., Grjibovski, A. M., Wilkinson, A. V. & Sjöström, M. (2009), Attending cultural events and cancer mortality: A Swedish cohort study, *Arts & Health, Vol 1, Iss 1, pp 64-73*
<http://www.tandfonline.com/doi/abs/10.1080/17533010802528058>
- Camic P, Hulbert S, Kimmel J (2017) Museum object handling: A health-promoting community-based activity for dementia care. *Journal of Health Psychology*. p.1-12
<http://dx.doi.org/10.1177/1359105316685899>.
- Camic, P. M., Tischler, V. & Pearman, C. (2014). Viewing and making art together: An eight-week gallery-based intervention for people with dementia and their caregivers. *Aging & Mental Health*, 18, 161-168. <http://dx.doi.org/10.1080/13607863.2013.818101>
- Camic, P. M., Tischler, V. & Pearman, C. (2014). Viewing and making art together: An eight-week gallery-based intervention for people with dementia and their caregivers. *Aging & Mental Health*, 18, 161-168. <http://dx.doi.org/10.1080/13607863.2013.818101>
- Chatterjee H, Noble G (2009) Object therapy: A student-selected component exploring the potential of museum object handling as an enrichment activity for patients in hospital. *Global Journal of Health Science*, 1(2): 42 50.
- Chatterjee, H., Vreeland, S., and Noble, G., (2009) 'Museopathy: Exploring the Healing Potential of Handling Museum Objects,' *Museum & Society*, 7 (3): 164-177.
- Childs, S., Ross, F., & Mueller R. (2012), *Assessing the Importance of Cultural Capital on PSE Attendance in Canada*. Ottawa: Education Policy Research Initiative.

Colbert SM, Cooke A, Camic PM and Springham N. (2013). The art gallery as a resource for recovery for people who have experienced psychosis. *The Arts in Psychotherapy*, 40 . DOI: 10.1016/j.aip.2013.03.003.

Dodd J, Jones C (2014) *Mind, body, spirit: How museums impact health and wellbeing*. RCMG: University of Leicester ISBN 978-1-898489-49-8

Dodd Jocelyn et al, (2002) *A Catalyst for Change: The Social Impact of the Open Museum*

Eeckelaar C, Camic PM and Springham N (2012). Art galleries, episodic memory and verbal fluency in dementia: an exploratory study. *Psychology of Aesthetics, Creativity and the Arts*, 6(3), 262-272.

Fancourt D, Steptoe A, (2019) The art of life and death: 14 year follow-up analyses of associations between arts engagement and mortality in the English Longitudinal Study of Ageing *BMJ* 2019; 367 :l6377 <http://dx.doi.org/10.1136/bmj.l6377>

Fancourt D, Steptoe A, Cadar D. Cultural engagement and cognitive reserve: Museum attendance and dementia incidence over a 10-year period. *British Journal of Psychiatry*, 2018, 213(5):661–663

Fancourt D, Steptoe A. Physical and psychosocial factors in the prevention of chronic pain in older age. *J Pain*. 2018;19(12):1385–91. doi: 10.1016/j.jpain.2018.06.001

Fancourt, D., & Tymoszuk, U. (2019). Cultural engagement and incident depression in older adults: evidence from the English Longitudinal Study of Ageing. *The British Journal Of Psychiatry*, 214(4), 225-229.

Fancourt, D., and Steptoe, A. (2018), "Cultural engagement predicts changes in cognitive function in older adults over a 10 year period: findings from the English Longitudinal Study of Ageing", *Nature International Journal of Science, Scientific Reports*, Volume 8, Article number: 10226 <https://doi.org/10.1038/s41598-018-28591-8>

Froggett L, Farrier A, Poursanidou K, Hacking S, Sagan O (2011) *Who cares? Museums, health and wellbeing research project*. Preston: University of Central Lancashire.

Fujiwara, Daniel. 2013. "Museums and happiness: the value of participating in museums and the arts," Arts Council England. http://www.happymuseumproject.org/wp-content/uploads/2013/04/Museums_and_happiness_DFujiwara_April2013.pdf.

Fujiwara D, Kudrna L, Cornwall T, Laffan K, Dolan P (2015) *Further analysis to value the health and educational benefits of sport and culture (DCMS March 2015)*

Gould V F (2013) *Reawakening the Mind - Evaluation of Arts 4 Dementia's London Arts Challenge in 2012: Arts interventions to re-energise and inspire people in the early stages of dementia and their carers*. Arts 4 Dementia

Grossi, E. et al. (2012), "The interaction between culture, health and psychological wellbeing: Data mining from the Italian Culture and Well-Being project", *Journal of Happiness Studies*, Volume 13, Issue 1, pp. 129-148.

Hooper-Greenhill E, Dodd J, Creaser C, Sandell R, Jones C, Woodham A (2007) *Inspiration, Identity, Learning: The Value of Museums Second Study. An evaluation of the DCMS/DCSF National/Regional Museum Partnership Programme in 2006-2007*. London: Department for Culture, Media and Sport, Leicester: Research Centre for Museums and Galleries, Loughborough: Loughborough University.

Hooper-Greenhill E, Dodd J, Gibson L, Phillips M, Jones C, Sullivan E (2006) *What Did You Learn at the Museum Today? Second Study. Evaluation of the outcomes and impact of*

learning through the implementation of the Education Programme Delivery Plan across nine Regional Hubs (2006). Leicester: Research Centre for Museums and Galleries.

Hooper-Greenhill E, Dodd J, Phillips M, Jones C, Woodward J, O'Riain H (2004) *Inspiration, Identity, Learning: The Value of Museums. The evaluation of the impact of the DCMS/DfES Strategic Commissioning 2003-2004: National/Regional Museum Education Partnerships, DCMS/RCMG, 2004*

Hooper-Greenhill E, Dodd J, Phillips M, O'Riain H, Jones C, Woodward J (2004) *What did you learn at the museum today? The evaluation of the impact of the Renaissance in the Regions Education Programme in the three Phase 1 Hubs (August, September and October 2003) for MLA Leicester: Research Centre for Museums and Galleries.*

Iwasaki, Y., Mannell, R. C., Smale, B. J. A. & Butcher, J. (2005). Contributions of Leisure Participation in Predicting Stress Coping and Health among Police and Emergency Response Services Workers', *Journal of Health Psychology*, 10 (1), pp. 79–99.

IWM North, Manchester Museum (2017) *Inspiring Futures: Volunteering for Wellbeing Final Report 2013 – 2016 Social Return on Investment Manchester: IWM North, Manchester Museum.*

Johnson J, Culverwell A, Hulbert S, Robertson M, Camic PM. Museum activities in dementia care: Using visual analog scales to measure subjective wellbeing. *Dementia*. 2017;16(5):591-610. doi:[10.1177/1471301215611763](https://doi.org/10.1177/1471301215611763)

Kanevsky, L., Corke, M., Frangkiser, L. (2008). The Academic Resilience and Psychosocial Characteristics of Inner-City English Learners Participating in a Museum-Based School Program. *Education and Urban Society, Volume 40, Issue 4, Pages 452-475.*

Konlaan BB, Bygren LO, Johansson SE. Visiting the cinema, concerts, museums or art exhibitions as determinant of survival: A Swedish fourteen-year cohort follow-up. *Scandinavian Journal of Public Health*, 2000, 28(3):174–178. doi: 10.1007/s11524-006-9051-8.

Lawson J, Reynolds F, Bryant W, Wilson L (2013) "It's like having a day of freedom, a day off from being ill': Exploring the experiences of people living with mental health problems who attend a community-based arts project, using interpretive phenomenological analysis", *Journal of Health Psychology*, 19/6: 765-777.

Løkken BI, Merom D, Sund ER, et al (2020) Cultural participation and all-cause mortality, with possible gender differences: an 8-year follow-up in the HUNT Study, Norway *J Epidemiol Community Health* 2020;74:624-630.

Mittelman, M. & Epstein, C. (2009). Research results. In F. Rosenberg et al (eds.). *The MoMA Alzheimer's project: Making art accessible to people with dementia*. New York, NY: the Museum of Modern Art. www.moma.org/docs/meetme/MeetMe_FULL.pdf

MLA Renaissance North West (2011) *The MAGPIE programme: A summary of the practice and impacts of a partnership between museums and schools in Manchester 2004-2010*

Morris Hargreaves McIntyre (2015) *The Whole Picture: Understanding the scope, scale and impact of volunteering in museums and galleries in Scotland. Final Report*. Edinburgh: Museums Galleries Scotland

Morris Hargreaves McIntyre for the Big Lottery Fund, *Evaluation of the Veterans Reunited Programme*. (2006) Accessed from the Big Lottery Fund website, 18 June 2007, <https://www.culturehive.co.uk/wp-content/uploads/2013/04/VeteransReunitedFinal.pdf>

Morse, N., Thomson, L. J., Brown, Z. & Chatterjee, H. J. (2015). Effects of Creative Museum Outreach Sessions on Measures of Confidence, Sociability and Well-being for

Mental Health and Addiction Recovery Service-users. *Arts & Health*, 7 (3), pp. 231-46. DOI:10.1080/17533015.2015.1061570

Morse, N., Thomson, L.J., Brown, Z. & Chatterjee, H.J. (2015). Effects of creative museum outreach sessions on measures of confidence, sociability and well-being for mental health and addiction recovery service-users. *Arts & Health: An International Journal of research, Policy and Practice*, 7(3), 231–246. doi: 10.1080/17533015.2015.1061570.

National Endowment for the Arts. (2009). *Art-goers in their communities: patterns of civic and social engagement. NEA Research Note #98 October 2009* Washington: National Endowment for the Arts

Neal C (2012) Can creative engagement in museums improve the mental health and wellbeing of people experiencing mental distress? A mixed methods pilot study: Welsh Museums Federation.

Newman, A. and McLean, F. (2004) Capital and the evaluation of the museum experience, in *International Journal of Cultural Studies*, 7(4):480-498

Newman, A. and McLean, F. 2006. The Impact of Museums upon Identity. *International Journal of Heritage Studies*, Special Issue: Heritage and Identity, vol. 12, no. 1, 49-68.

Newman, A., McLean, F. and Urquhart, G. (2005) Museums and the Active Citizen: Tackling the Problem of Social Exclusion, in *Citizenship Studies*, 9(1):41-57

Overgaard, I. and Sørensen, N. O. (2015), 'Can an art museum help in combating loneliness?', *Journal of Applied Arts & Health*, 6: 2, pp. 187–203, doi: 10.1386/jaah.6.2.187_1 https://doi.org/10.1386/jaah.6.2.187_1

Packer, J. (2008). Beyond learning: Exploring visitors' perceptions of the value and benefits of museum experiences. *Curator 2008, Vol 51, Issue 1, 33-54*

Paddon, H. L., Thomson, L. J. M., Menon, U., Lanceley, A., Chatterjee, H. J., 'Mixed methods evaluation of well-being benefits derived from a heritage-in-health intervention with hospital patients', *Arts & Health*, 6/1 (January 2014), pp. 24-58.

Polinsky N, Perez J, Grehl M, and McCrink K. (2017) Encouraging Spatial Talk: Using Children's Museums to Bolster Spatial Reasoning. *Mind, Brain, and Education*, 2017, 11(3):144–152.

Roberts S, Camic PM and Springham N. (2011). New roles for art galleries: Art-viewing as a community intervention for family carer of people with mental health problems. *Arts and Health: An International Journal for Research, Policy and Practice*, 3(2), 146-159.

Rosenberg, F. (2009). The MoMA Alzheimer's Project: Programming and resources for making art accessible to people with Alzheimer's disease and their caregivers. *Arts & Health*, 1 (1), pp. 93–97.

Smiraglia C (2015) Museum programming and mood: Participant responses to an object-based reminiscence outreach program in retirement communities. *Arts & Health*, 7: 187-201.

Solway, R., Thomson, L.J., Camic, P.M. & Chatterjee, H.J. (2015). Museum Object Handling in Older Adult Mental Health Inpatient Care. *International Journal of Mental Health Promotion*, 17 (4), pp. 201–14

Stanley J (2006) An Evaluation of the Impact of the NW Museum Hub's Primary Consultant (Museums and Galleries) with Manchester Education Partnership Final Report Centre for Education and Industry (in partnership with CEDAR) University of Warwick

Stavrova, O. & Urhahne, D. (2010). Modification of a school programme in the Deutsches Museum to enhance students' attitudes and understanding . *International Journal of Science Education*, 32(17), 2291-2310.

Thomson LJM, Chatterjee HJ. Well-Being With Objects: Evaluating a Museum Object-Handling Intervention for Older Adults in Health Care Settings. *Journal of Applied Gerontology*. (2016);35(3):349-362. doi:10.1177/0733464814558267

Thomson, L., Ander, E., Lanceley, A., Menon, U., Noble, G. and Chatterjee, H. J. (2012a) Quantitative evidence for wellbeing benefits from a heritage-in-health intervention with hospital patients. *International Journal of Art Therapy*. 17(2): 63–79. DOI: 10.1080/17454832.2012.687750.

Thomson, L., Ander, E., Lanceley, A., Menon, U., Noble, G., et al. (2012b). Enhancing Cancer Patient Wellbeing with a Non-pharmacological, Heritage-focused Intervention. *Journal of Pain and Symptom Management*, 44 (5), pp. 731–40

Thomson, L., Morse, N., Elsdon, E. and Chatterjee, H. (2020). Art, nature and mental health: assessing the biopsychosocial effects of a 'creative green prescription' museum programme involving horticulture, artmaking and collections. *Perspectives in Public Health*. Advanced Online Publication. DOI: [10.1177/1757913920910443](https://doi.org/10.1177/1757913920910443)

Thomson, L.J., Ander, E.E., Menon, U., Lanceley, A. & Chatterjee, H.J. (2011) Evaluating the therapeutic effects of museum object handling with hospital patients: A review and initial trial of wellbeing measures. *Journal of Applied Arts and Health*, 2(1), 37-56.

Thomson, L.J., Lockyer, B., Camic, P. and Chatterjee, H. 2018. Effects of a museum-based social prescription intervention on quantitative measures of psychological wellbeing in older adults. *Perspectives in Public Health*, **138**(1), pp.28-38. DOI: [10.1177/1757913917737563](https://doi.org/10.1177/1757913917737563)

Todd, C, Camic P M, Lockyer B, Thomson L J M, Chatterjee H J (2017) Museum-based programs for socially isolated older adults: Understanding what works *Health & Place*, Volume 48, November 2017, Pages 47-55
<http://dx.doi.org/10.1016/j.healthplace.2017.08.005>

Watson S, Dodd J, Jones C (2007) Engage, learn, achieve: The impact of museum visits on the attainment of secondary pupils in the East of England 2006-2007. Leicester: Research Centre for Museums and Galleries.

Węziak-Białowolska, D., Białowolski, P., & Sacco, P. L. (2019). Involvement with the arts and participation in cultural events—Does personality moderate impact on well-being? Evidence from the U.K. Household Panel Survey. *Psychology of Aesthetics, Creativity, and the Arts*, 13(3), 348–358. <https://doi.org/10.1037/aca0000180>

Wilson K, Whelan G (2014) An evaluation of House of Memories dementia training programme: Midlands Model September 2014. Liverpool: Institute of Cultural Capital and National Museums Liverpool

Woods, R. T., Bruce, E., Edwards, R. T., Elvish, R., Hoare, Z., et al. (2012). REMCARE: Reminiscence groups for people with dementia and their family caregivers – effectiveness and cost-effectiveness pragmatic multicentre randomised trial, 16 (48). *Health Technology Assessment*.

APPENDIX 2: LIST OF REVIEWS

Dowlen R., 2020. **Research Digest: Culture on Referral**. Version 1, September 2020. Leeds: Centre for Cultural Value.

Fancourt F, Warran K. & Aughterson H (2020) **Evidence Summary for Policy: The role of arts in improving health & wellbeing**. Report to the Department for Digital, Culture, Media & Sport April 2020

The Heritage Alliance (2020) **Heritage, Health and Wellbeing** A Heritage Alliance Report

Fancourt D & Finn S. (2019) WHO Health Evidence Network synthesis report 67 **What is the evidence on the role of the arts in improving health and well-being? A scoping review** Daisy Fancourt and Saoirse Finn

What Works Centre for Wellbeing (2019) **Heritage and wellbeing. The impact of historic places and assets on community wellbeing - a scoping review** Technical Report March 2019 (Pennington A, Jones R, Bagnall A-M, South J, Corcoran R (2018) The impact of historic places and assets on community wellbeing - a scoping review. London: What Works Centre for Wellbeing.)

House of Commons Digital, Culture, Media and Sport Committee (2019) **Changing Lives: the social impact of participation in culture and sport** Eleventh Report of Session 2017–19

OECD AND ICOM (2019) **Culture and Local Development: Maximising the Impact A GUIDE FOR LOCAL GOVERNMENTS, COMMUNITIES AND MUSEUMS**

What Works Centre for Wellbeing (2018) **A systematic review of the subjective wellbeing outcomes of engaging with visual arts for adults ("working-age", 15-64 years) with diagnosed mental health conditions** January 2018. Tomlinson A et al

Arts Council England (2018) **Arts and culture in health and wellbeing and in the criminal justice system: Scoping the evidence base**. Richard Ings and John McMahon. Arts Council England November 2018

Art Fund (2018) **Calm and collected. Museums and galleries: the UK's untapped wellbeing resource?** Art Fund

National Alliance for Museums, Health and Wellbeing (2018) **Museums as Spaces for Wellbeing: A Second Report from the National Alliance for Museums, Health and Wellbeing** (Desmarais, S., Bedford, L. and Chatterjee, H.J., 2018. Museums as Spaces for Wellbeing: A Second Report from the National Alliance for Museums, Health and Wellbeing.

Not So Grim Up North Research Team (2018) **Not So Grim Up North: Investigating the health and wellbeing impacts of museum and gallery activities for people living with dementia, stroke survivors, and mental health service-users research** (Funded by Arts Council England (ACE) in a collaboration between University College London (UCL) and museum partners: The Whitworth and Manchester Museum, The University of Manchester, and Tyne & Wear Archives & Museums (TWAM).

All-Party Parliamentary Group on Arts, Health and Wellbeing Inquiry Report (2017) **Creative Health: The Arts for Health and Wellbeing**. July 2017. Second Edition

What Works Centre for Well-being (2017) **Assessing the relationship between engagement in visual art and subjective wellbeing among people with diagnosed**

depressive disorders. Paul Dolan and Stefano Testoni Secondary analysis report Culture, sport, and well-being evidence programme What Works Centre for Well-being October 2017

IWM North and Manchester Museum (2017) **Inspiring Futures: Volunteering for Wellbeing Final Report 2013 – 2016** Social Return on Investment.

Arts & Humanities Research Council (2016) **Understanding the value of arts & culture The AHRC Cultural Value Project.** Geoffrey Crossick & Patrycja Kaszynska

National Alliance for Museums, Health and Wellbeing (2016) **Museums for Health and Wellbeing. A Preliminary Report** from The National Alliance for Museums, Health and Wellbeing (Lackoi, K., Patsou, M., and Chatterjee, H.J. et al. (2016) Museums for Health and Wellbeing. A Preliminary Report, National Alliance for Museums, Health and Wellbeing.)

HLF (2016) **Values and benefits of heritage: a research review** by HLF Strategy & Business Development Department. April 2016

Department of Canadian Heritage (2016) **Social Impacts and Benefits of Arts and Culture: A Literature Review.** Policy Research Group, Department of Canadian Heritage. Marilyn Smith, Rebecca Fisher and Joelle Mader, 2016

CASE (2015) **A review of the Social Impacts of Culture and Sport,** Peter Taylor, Larissa Davies, Peter Wells, Jan Gilbertson and William Tayleur March 2015

DCMS (2015) **Further analysis to value the health and educational benefits of sport and culture.** March 2015. Daniel Fujiwara, Laura Kudrna, Tom Cornwall, Kate Laffan, Paul Dolan

DCMS (2014) **Quantifying and Valuing the Wellbeing Impacts of Culture and Sport.** Daniel Fujiwara, Laura Kudrna, Paul Dolan. DCMS, April 2014

Arts Council England (2014) **The Value of Arts and Culture to People and Society: An Evidence Review.** Co-authored by Arts Council England's research team: Andrew Mowlah, Vivien Niblett, Jonathon Blackburn and Marie Harris. Second edition, March 2014

AIM (2014) **Evidencing Social and Environmental Impacts of Museums: AIM Advocacy Toolkit,** Association of Independent Museums, December 2014

Dodd J & Jones C (2014) **Mind, body, spirit: How museums impact health and wellbeing.** Jocelyn Dodd; Ceri Jones. June 2014

Royal Society for Public Health (2013) **Arts, Health and Wellbeing Beyond the Millennium: How far have we come and where do we want to go?** Full Report. The RSPH Working Group on Arts, Health and Wellbeing, June 2013 Published by the RSPH and the Philipp Family Foundation

Fujiwara D. (2013) **Museums and happiness: The value of participating in museums and the arts.** Daniel Fujiwara. April 2013

Balshaw M, Daniel J, Mount P, Regan D (2012) **How museums and galleries can enhance health and wellbeing.** Manchester: Health and Culture.

Froggett L, et al (2011) **Who Cares? Museums, Health and Wellbeing Research Project** (MLA NW) March 2011 Prof. Lynn Froggett, Dr. Alan Farrier and Dr. Konstantina Poursanidou with Dr. Susan Hacking, University of Central Lancashire and Dr. Olivia Sagan, Anna Freud Centre (project design and literature review)

Renaissance Yorkshire (2010) **Local Government Improvement Evidence Toolkit** Final Report August 2010 (carried out by DC Research)

Arts Council England (2004) **Arts in health: a review of the medical literature** Dr Rosalia Lelchuk Staricoff. ACE, Research Report 36.