

Supplement to Research Report 37  
February 2005



# **Your health and the arts:**

a study of the association  
between arts engagement  
and health

Dr Joy Windsor



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# Conventions

The following conventions have been used within tables:

\* less than 0.5%

Base refers to the number of people in each group who answered the question.

Unless otherwise stated, differences mentioned in the text are statistically significant at the 95% level. Where one group of respondents is compared with all other groups (for example, respondents living in London, with all those living in the three other regions) percentages are based on the number of respondents living in London and the total number of respondents living in the three other regions.

A percentage may be quoted in the text for a single category that is identifiable in the tables only by summing two or more component percentages. In order to avoid rounding errors, the percentage has been recalculated for the single percentage and therefore may differ by one percentage point from the sum of the percentages derived from tables.

In Chapters 6 and 7, lists of comparisons between groups are presented in order of the strength of statistically significant differences.

# Foreword and acknowledgements

I am delighted to introduce this report on engagement with the arts, health and illness. We are developing our first national arts and health strategy and this report will play a key role in informing the development of that strategy.

Artists have long been aware of the benefits of the arts on health and well-being and we know from evaluation reports that the arts can have a positive impact on health. We have, however, previously lacked a systematic evidence base about those benefits which is sufficiently robust to carry weight with practitioners and policy-makers in the health sector.

This report is our second contribution to strengthening that evidence base. In August 2004 we published a review by Dr. Rosalia Staricoff of the medical literature on arts and health, which demonstrated some of the powerful outcomes of introducing the arts into healthcare settings. This report, by Dr. Joy Windsor, demonstrates that engaging with the arts can have benefits for us all, whether by attending events, taking part in artistic activities ourselves or by listening to or watching arts programmes on various audio-visual media. It is based on a rigorous statistical analysis of a survey of over 12,000 people, commissioned by Arts Council England from the Office for National Statistics.

Dr. Windsor's analysis shows us that people who attend artistic and cultural events are more likely than other people to report good health, even when important characteristics such as age, socio-economic status and highest educational qualifications are taken into account. Taking part in dance activities is also associated with better health – one way of preventing obesity and contributing to an improvement in the nation's health. Not surprisingly, people with a longstanding illness which limits their activities were less likely than other people to attend artistic and cultural events. However, this group was more likely than others to engage in creative activities. This finding is encouraging, as it shows that the arts have much to offer to people who, because of illness or disability, find it difficult to travel to arts events.

I would like to thank Dr. Windsor for her meticulous analysis of the data on arts and health. This report will provide a valuable resource in helping us to take forward our work on arts and health.

**Peter Hewitt**  
**Chief Executive, Arts Council England**



# Executive summary

## Background

In its report of July 1999, Policy Action Team 10 (PAT 10)<sup>1</sup> argued that participation in the arts and sport can help address neighbourhood renewal by improving communities' 'performance' on the four key indicators of health, crime, employment and education (DCMS, 1999). The report noted, however, that although there was much 'anecdotal' evidence that the arts and sport are successful in promoting community development, relatively little 'hard' evidence existed about the cost and benefit of arts and sport and about what sorts of projects provide value for money.

There is a long history of arts interventions in health including: art therapy; the use of art to improve the hospital environment; as part of treatment and recuperation; and as part of a range of alternative approaches to health care (art on prescription). The availability and quality of research in the area of arts in health is also improving. Existing work includes: reviews of evaluation of community-based arts in health projects (Health Development Agency, 2000; Angus, 2002) and a review of the literature on arts and mental health (White, 2003). Other research includes the impact of environmental design on hospital patients and staff (Leather et al, 2000; Buxton, 2001).

In 2004, Arts Council England published a review of the medical literature on the association between the arts and health outcomes in healthcare settings (Staricoff, 2004). This report focuses on the associations between engagement in the arts, health and illness among the general population in England. Arts Council England is currently developing a national strategy for arts and health, which will include proposals for further research that build on these two reports.

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<sup>1</sup>PAT 10 focuses on the contribution that sport and the arts can potentially make toward neighbourhood renewal. Policy Action Team 10 (PAT 10) and 17 other Policy Action Teams were set up, in 1998, to look in an integrated way at the problems of poor neighbourhoods. Each Team was made up of officials from Government Departments, experienced practitioners and academics.

## Sources of data

In 2001, 2002 and 2003, Arts Council England, the Museums, Libraries and Archives Council (MLA) and the UK Film Council, commissioned the Office for National Statistics (ONS) to carry out surveys of attendance, participation and attitudes to the arts. The 2001 and 2003 surveys were of the general population, while the 2002 survey focussed on Black and minority ethnic people. In total, 12,262 people were interviewed in England between 2001 and November 2003.

The surveys included some questions on health to enable us to explore its relationship with engagement in the arts. Guided by previous literature on the factors associated with good health, we grouped together attendance at arts and cultural events and venues into performing arts and non-performing arts and culture. We also grouped participation into creative activities, sociable activities and physically demanding activities, and explored their association with health and longstanding illness.

## Attendance

Altogether, 85% of the people who took part in the surveys had visited or attended at least one artistic or cultural event or activity in the last 12 months. Almost two-thirds (63%) had attended performing arts events while almost four in five (79%) had gone to non-performing arts or cultural events or venues. Nearly three-fifths (57%) said they had attended both performing and non-performing arts or culture. The most frequently attended or used types of non-performing arts or culture were:

- films, by 60% of respondents
- public libraries, by 46%

Fewer people had gone to performing arts events but they were most likely to go to:

- carnivals, street art or circuses, 27%
- plays or drama, 26%
- musicals, 24%

Younger people, those in professional and managerial groups and residents of the South of England were most likely to have gone to both performing and non-performing arts or cultural events or venues. Men and women were equally likely to have attended performing or non-performing arts or culture. Among the performing arts:



- people aged under 45 were most likely to attend roots, folk, world or other live music (34% in the last year), or a carnival, street arts event or circus (33%)
- people aged 45 or over were most likely to see a play or drama (26%) or a musical (24%)

Of the non-performing arts or culture:

- people aged under 55 were most likely to see a film (72% in the last year)
- people of 55 or over were most likely to visit a public library (42%)
- men were more likely than women to go to an event involving video or electronic art (10% compared with 6% of women)

Over two-thirds (69%) of attenders would like to have attended more if they could. The main reasons that they did not do so were lack of time and cost. A smaller proportion of non-attenders (40%) said they wanted to go to arts events. The main reasons given by non-attenders for not attending were lack of time (34%) and cost (34%). Almost three in 10 (29%) non-attenders mentioned poor health as a reason for not going to arts events. In contrast, only 6% of attenders said that this stopped them from attending more events.

## Participation

Almost three-fifths (58%) of respondents had participated in at least one of 23 artistic or cultural activities in the last 12 months. The activities were grouped into:

- creative activities such as printing or drawing and writing poetry, stories or plays, in which 37% of respondents engaged
- sociable activities such as going clubbing and belonging to an arts group such as a choir or singing group, mentioned by 33%
- physically demanding activities (dance), which 19% of people had done

The most common activities were clubbing (25% of people said they had done this), any type of dance (19%), painting, drawing, printing or sculpture (14%) and textile crafts (13%).

People under the age of 25 were the most likely to have taken part in creative activities (52%), sociable activities (71%) and dance (26%). Among the socio-economic groups, the highest proportions taking part were in

managerial or professional groups (42%, 35% and 22% respectively). Women were more likely to have danced (26% compared with 10% of men). There were also regional differences:

- Londoners were the most likely to have participated in sociable and dance activities (37% and 24% respectively)
- people living in the North were most likely to have gone clubbing (28%) but least likely to have participated in creative activities (32%)

The proportion of respondents who created original artworks using a computer rose from 4% in 2001 to 12% in 2003. Younger people aged 16–24 (18%) and people from Black and minority ethnic groups (also 18%) were particularly likely to have made art in this way.

## Accessing the arts through audiovisual media

In total, 95% of the people who took part in the surveys had accessed the arts through various types of audiovisual media in the last four weeks, or online media in the last 12 months.

- CDs, mini discs, tapes or records were listened to by 85% of people
- 83% of respondents had listened to arts programmes on the radio
- 70% of the people who took part in the survey had watched arts programmes on the television, videos or DVDs
- arts on the internet were accessed by 18% of respondents

Most commonly, people had accessed the arts through all three audiovisual media but not through the internet. The artforms most commonly watched or listened to were:

- rock or pop music: 66% listened to CDs, 64% to the radio, 47% watched on television and 12% listened on the internet
- classical music, listened to by 40% (CDs) and 32% (the radio)
- plays, watched by 25% (television, videos or DVDs)

Younger people, those in professional or managerial groups and people who lived in the South were more likely than others to access artforms through audiovisual or online media. In particular:

- people aged 75 or over were most likely to watch arts programmes on television, videos or DVDs (62%)
- younger respondents were more likely than older ones to listen to CDs, mini discs tapes or records (from 96% of people aged between 16 and 24 to 54% of those aged 75 or over)

In the 12 months prior to being interviewed, the following groups were most likely to have accessed the arts on the internet:

- men (22% compared with 14% of women)
- younger people aged 16–24 (46% in comparison to 13% of older people)
- people in managerial and professional groups (21% compared with 13% of those in other groups)
- Londoners (23% compared with 16% of people living in other regions)

## **Engagement in the arts and longstanding illness**

Nearly three out of 10 of the people who took part in the survey (29%) reported a longstanding illness or disability. Of these, 67% (19% of all respondents) had an illness that limited their activities in some way. The presence of a limiting longstanding illness was strongly associated with age, socio-economic group and region, but not with sex. A limiting longstanding illness was less likely to be reported by:

- younger people (the proportion rose from 6% of those aged less than 25 to 48% of those who were 75 or over)
- managers, professionals, those in intermediate groups, small employers and own account workers (16% compared with 25% of those in other groups)
- Londoners (15% compared with 20% of others)

When age and other important factors were taken into account, it was found that people with a limiting longstanding illness were less likely than people with no longstanding condition to:

- attend any type of both performing or non-performing arts or culture
- participate in any sociable or dance activities
- listen to arts programmes on the radio

People with a longstanding illness (whether limiting or not) were, however, more likely than people with no condition to take part in creative activities.

## **Self-reported general health and engagement in the arts**

Over three-quarters (77%) of all respondents said that their health was good or very good, while only 5% said that it was bad or very bad. There was little difference between the health of men and women. Very good

or good health was more likely to be reported by:

- younger people (88% of those aged 16–24, falling to 52% of those aged 75 or over)
- those in managerial or professional groups (84% compared with 72% of those in other groups)
- people who lived in the South (81%, compared with 73% of residents of the North)

Allowing for age and other socio-demographic characteristics, better health was more likely to be reported by people who:

- attended performing arts events
- attended non-performing arts or cultural events or venues
- participated in dance activities
- accessed artforms through CDs, mini discs, tapes or records
- listened to the arts through the radio
- viewed the arts on television, videos or DVDs

There were no differences in self-reported general health by participation in creative or sociable activities, or by access to the arts through the internet.

The availability of local resources such as theatres, museums or art galleries, concerts and exhibitions was significantly associated with self-reported general health, when socio-demographic factors were allowed for. People who said that all, or almost all, of these facilities were available locally were more likely to report better health than those who said they were less readily available.

## **Illness, health and engagement in the arts**

People who engaged in the arts were more likely to report good general health but this could have been because they were also less likely to report longstanding illness. However, when the analysis was repeated looking only at people without a limiting longstanding illness, there was still an association between self-reported general health and engagement in the arts.

Among respondents who did not have a limiting longstanding illness, better health was more likely to be reported by people who:

- attended performing arts
- attended non-performing arts or culture
- participated in dance
- accessed artforms through CDs, mini discs, tapes or records
- watched the arts on television, videos or DVDs

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# 1 Introduction

This report presents key findings on the associations between engagement in the arts, health and illness. The study is based on population surveys carried out for Arts Council England by the Office for National Statistics (ONS).

## 1.1 Background

In its report of July 1999, Policy Action Team 10 (PAT 10)<sup>2</sup> argued that participation in the arts and sport can help address neighbourhood renewal by improving communities' 'performance' on the four key indicators of health, crime, employment and education (DCMS, 1999). The report noted, however, that although there was much 'anecdotal' evidence that the arts and sport are successful in promoting community development, relatively little 'hard' evidence existed about the cost and benefit of arts and sport and about what sorts of projects provide value for money.

There is a long history of arts interventions in health including: art therapy; the use of art to improve the hospital environment; as part of treatment and recuperation; and as part of a range of alternative approaches to health care (art on prescription). The availability and quality of research in the area of arts in health is, however, improving. Existing work includes: reviews of evaluation of community-based arts in health projects (HDA, 2000; Angus, 2002) and a review of the literature on arts and mental health (White, 2003). Other research concerns the impact of environmental design on hospital patients and staff (Leather et al, 2000; Buxton, 2001).

In 2004, Arts Council England published a review of the medical literature on the association between the arts and health outcomes in healthcare settings (Staricoff, 2004). The literature reviewed by Staricoff showed that interventions based on the arts can be beneficial to both patients and

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<sup>2</sup>PAT 10 focuses on the contribution that sport and the arts can potentially make toward neighbourhood renewal. Policy Action Team 10 (PAT 10) and 17 other Policy Action Teams were set up, in 1998, to look in an integrated way at the problems of poor neighbourhoods. Each Team was made up of officials from Government Departments, experienced practitioners and academics.

clinicians. Little research has been carried out on the health benefits to members of a general population who experience the arts. Most research on engagement in the arts does not include information on associations with health and much of what has been reported is based on small-scale or locally-based projects (Bridgwood and Skelton, 2000; Skelton et al., 2002).

A study in Sweden, which examined the association between attendance at cultural events and survival (or longer length of life) found that, even when key variables such as age, sex, education level, income, long-term disease, smoking and physical exercise were taken into account, attendance at cultural events, reading books or periodicals, making music or singing in a choir appeared to reduce the risks of mortality within the 10 years of the study period (Bygren et al, 1996). This current report examines the associations between engagement in the arts, health and illness in England. Arts Council England is currently developing a national strategy for arts and health, which will include proposals for further research that will build on this report.

## 1.2 Methodology

In 2001, 2002 and 2003, Arts Council England, The Council for Museums, Archives and Libraries (formerly Resource) and the UK Film Council, commissioned the Office for National Statistics (ONS) to carry out surveys of attendance, participation and attitudes to the arts. The 2001 and 2003 surveys were of the general population, while the 2002 survey focussed on Black and minority ethnic people. In total, 12,262 adults aged 16 and over were interviewed in England between 2001 and November 2003. The results of these surveys were published in Skelton et al (2002), Bridgwood, et al (2003) and Fenn et al (2004) respectively.

The surveys included some questions on health to enable us to explore its relationship with engagement in the arts. *Arts in England 2001* (Skelton et al, 2002) included a chapter which presented some simple analysis of whether people with a longstanding illness were more or less likely than other people to attend, participate in or access the arts via various media.

For this study, we have merged the 2001–03 datasets, as the large sample size of 12,262 respondents allows us to carry out a more sophisticated analysis than was possible in *Arts in England*. Guided by previous literature on the factors associated with good health, we grouped together

attendance at arts and cultural events and venues into performing arts and non-performing arts and culture. We also grouped participation into creative activities, sociable activities and physically demanding activities. Multivariable analysis was carried out to explore the associations between engagement in the arts, health and illness. This technique allows factors which are associated with both health and with engagement in the arts, such as age, socio-economic status and educational qualifications, to be taken into account. The grouping of the activities means that the figures in this report are not always identical to those in previously published reports.

Details of sampling methods, weighting and availability of the data are given in Appendix 2 of *Arts in England: attendance, participation and attitudes in 2003* (Fenn et al, 2004).

### **1.3 How to use this report**

The aim of this study was to explore the associations between engagement in the arts, health and illness. Arts practitioners working with particular groups of people will be interested in knowing about the patterns of engagement among different groups of people. Chapters 2–4 therefore describe attendance, participation and access to the arts through various audiovisual media by sex, age, socio-economic status and region. Chapter 2 explores attendance at both performing and non-performing arts or culture, while Chapter 3 examines participation in creative, sociable and physically demanding activities. Chapter 4 looks at access to the arts via four types of audiovisual or online media.

Chapters 5–7 focus on health and illness. Chapter 5 explores the relationships between involvement in the arts and health and illness. Chapters 6 and 7 investigate the associations between health and engagement in the arts, taking account of age, and other characteristics of respondents. Chapter 6 looks at associations with longstanding illness and Chapter 7 at associations with self-reported general health.

A glossary of the terms used in the report and the questionnaire can be found in Appendix 1 and 2 respectively. Appendix 3 provides technical information on the multivariate analyses.

## 2 Attendance at performing and non-performing arts or culture

This chapter explores attendance at arts and cultural events or activities, and gives information about the characteristics of the people who attended. The types of artistic or cultural event or activity that people of different ages, sex, socio-economic group or area of residence choose to attend may vary. For example, certain types of event may be less available outside London, or people with poor health may find it difficult to attend crowded events. It is also interesting to explore whether health (as discussed in Chapter 5) is more strongly associated with attending an event with live performers than with other types of events or venues. The events or activities were therefore divided into two groups: performing and non-performing, arts or culture. The chapter also discusses barriers to increased attendance.

### 2.1 Patterns of attendance

Respondents were asked which, if any, from a range of performing or non-performing arts or culture, they had been to in the last 12 months before interview (see Tables 2.1 and 2.2). Altogether 85% of respondents had visited or attended at least one of these events or activities and the majority (57%) had attended both performing and non-performing arts or culture in the last 12 months. Over three-fifths (63%) of respondents had attended at least one of the 10 types of performing art listed, in the last 12 months. Nearly four-fifths (79%) had attended at least one of the seven types of non-performing art or culture.

Of the performing arts, going to a carnival, street arts or circus (27%), a play or drama (26%) or a musical (24%) were the most widely attended (Table 2.1).

**Table 2.1: Percentage attending performing arts in the last 12 months**

Type of performing art	Percentage
Carnival, street arts or circus (not animals)	27
Play or drama	26
Musical	24
Pop or rock	18
Live dance event	13
Cultural festival	12
Classical music	10
Opera or operetta	6
Jazz	6
Other live music event (a)	28
<b>Base</b>	<b>12,233</b>

*Percentages add to more than 100% because respondents could mention more than one type of performing art*

*(a) Roots, folk, world and other unspecified types of live music*

The most widely attended types of non-performing art or culture were film at a cinema or other venue (60%) and visiting a library (46%) or museum or art gallery (36%) (Table 2.2).

**Table 2.2: Percentage attending non-performing arts or culture in the last 12 months**

Type of non-performing art or culture	Percentage
Film at a cinema or other venue	60
Library	46
Museum or art gallery	36
Art, photography or sculpture exhibition	20
Craft exhibition	17
Event connected with books or writing	9
Event including video or electronic art	8
<b>Base</b>	<b>12,232</b>

*Percentages add to more than 100% because respondents could mention more than one type of non-performing art or culture*

## Number of types of performing or non-performing art or culture attended

Two-fifths (40%) of respondents had attended more than one of the 10 types of performing art and most (53%) had attended more than one of the seven types of non-performing art or culture (Table 2.3 and Table 2.4).

**Table 2.3: Number of types of performing art attended in the last 12 months**

Number of types attended	Percentage
None	37
One	24
Two or three	27
Between four and 10	13
<b>Base</b>	<b>12,228</b>

**Table 2.4: Number of types of non-performing art or culture attended in the last 12 months**

Number of types attended	Percentage
None	21
One	26
Two or three	36
Between four and seven	17
<b>Base</b>	<b>12,217</b>

## 2.2 Characteristics of attenders

Appendix 3 gives details of the sex, age, socio-economic status and area of residence of all respondents.

### Sex

Similar proportions of men and women had attended performing arts at least once (63% and 64%, respectively), and non-performing arts or culture at least once (79% and 80%, respectively) in the 12 months prior to interview. With some exceptions, similar proportions of men and women also attended or visited individual events or activities. Women, for example, were more likely to have visited a public library (50% had done so



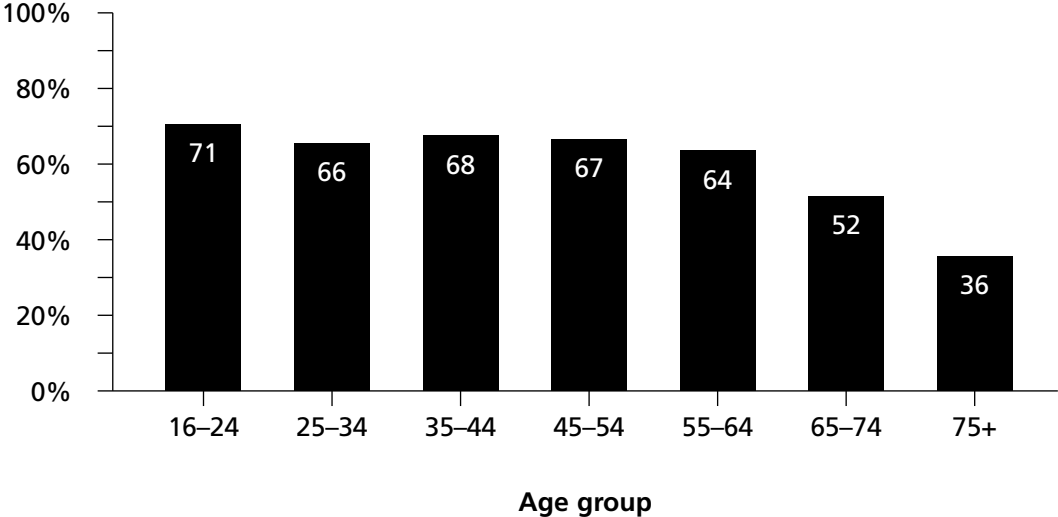
compared with 43% of men) or a craft exhibition (mentioned by 18% of women and 15% of men). A higher proportion of men, on the other hand, said they had been to an event that included video or electronic art (10% compared with 6% of women).

There were also differences between men and women in attendance at individual performing arts. For example, women were more likely than men to attend musicals (26% compared with 22%) or plays or drama (28% compared with 24%), whereas a higher proportion of men than of women attended rock or pop concerts (19% compared with 16%) or other live music events (30% compared with 26%).

**Age**

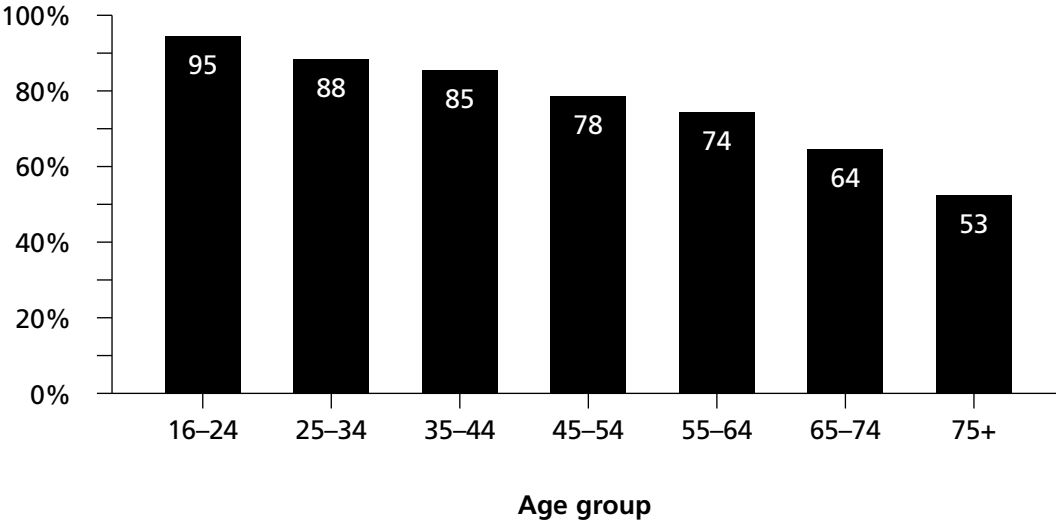
Taking all performing arts together there was a clear association between age and attendance. Younger people were much more likely than older people to have attended at least one of these events in the last 12 months; the proportions doing so ranged from 71% of the 16–24 age group to 36% of people aged 75 and over (Figure 2.1).

**Figure 2.1: Percentage attending performing arts at least once in the last 12 months, by age**



The proportions attending non-performing arts or culture ranged from 95% of those aged between 16 and 24 to 53% of those who were 75 or over (Figure 2.2).

**Figure 2.2: Percentage attending non-performing arts or culture at least once in the last 12 months, by age**



The proportions of people attending or visiting individual events or activities also varied by age. Older people were less likely than younger people to attend five of the 10 types of performing art listed (carnival, pop or rock concerts, live dance events, cultural festivals and other live music events). With the exception of people aged 75 and over, the proportions of respondents who went to classical music concerts and opera tended to increase with age (Table 2.5).

**Table 2.5: Percentage attending performing arts, by age**

Type of performing art	16–24 %	25–34 %	35–44 %	45–54 %	55–64 %	65–74 %	75+ %	All %
Carnival, street arts or circus (not animals)	31	32	34	26	22	18	10	27
Play or drama	25	23	28	31	30	24	16	26
Musical	24	23	23	28	29	23	15	24
Pop or rock	27	24	23	20	10	2	1	18
Live dance event	18	14	12	14	14	10	5	13
Cultural festival	15	15	14	12	9	6	3	12
Classical music	4	6	7	13	16	15	10	10
Opera or operetta	3	3	4	7	9	9	6	6
Jazz	4	5	6	7	8	5	3	6
Other live music event	37	33	33	31	23	14	6	28
<b>Base</b>	<b>1,292</b>	<b>2,207</b>	<b>2,435</b>	<b>1,873</b>	<b>1,646</b>	<b>1,503</b>	<b>1,277</b>	<b>12,233</b>

*Percentages add to more than 100% because respondents could mention more than one event or activity*

Several performing arts (plays or drama, musicals and performances of jazz music) and non-performing arts or culture (museums or art galleries, art or craft exhibitions and literary events) were most commonly attended by people aged between 45 and 64. People aged between 35 and 54 had the highest proportions going to museums and literary events. Of the remaining types of non-performing art or culture, younger people were more likely than older people to have seen a film, or attended an event that included video or electronic art. There was no clear pattern of age differences for visiting a library (Table 2.6).

**Table 2.6: Percentage attending non-performing arts or culture, by age**

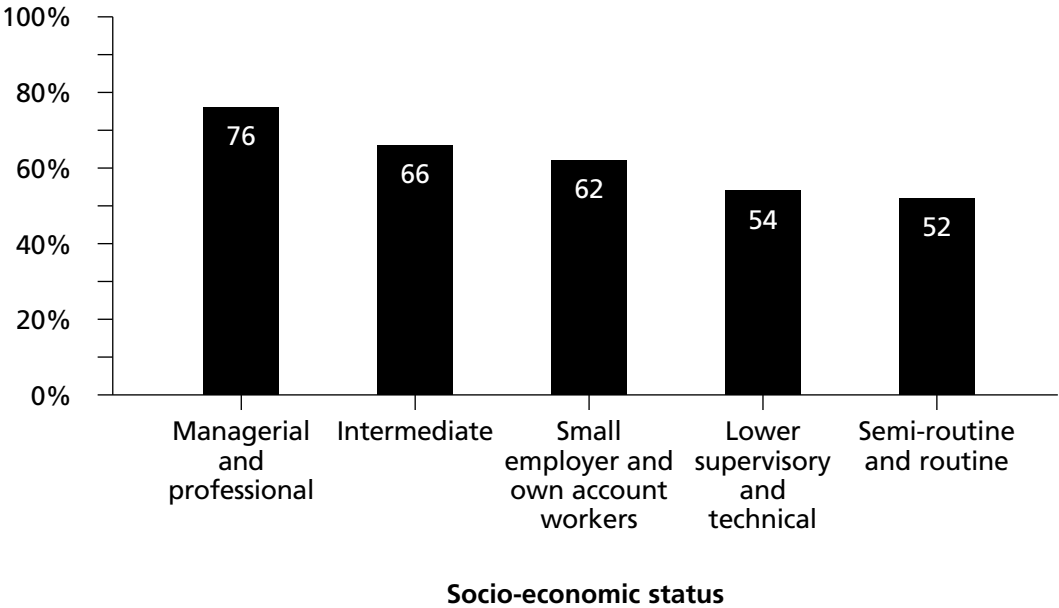
Type of non-performing art or culture	16–24 %	25–34 %	35–44 %	45–54 %	55–64 %	65–74 %	75+ %	All %
Film at a cinema or other venue	88	77	70	57	41	29	14	59
Library	52	44	51	46	43	43	40	46
Museum or art gallery	33	37	40	40	39	33	21	36
Art, photography or sculpture exhibition	18	20	20	24	24	20	10	20
Craft exhibition	8	13	17	21	26	20	13	17
Event connected with books or writing	9	9	10	10	9	6	5	9
Event including video or electronic art	14	12	8	6	4	2	1	8
<b>Base</b>	<b>1,292</b>	<b>2,207</b>	<b>2,435</b>	<b>1,872</b>	<b>1,646</b>	<b>1,503</b>	<b>1,277</b>	<b>12,232</b>

*Percentages add to more than 100% because respondents could mention more than one event or activity*

### **Socio-economic status**

Again, taking all types of performing and non-performing art or culture together, there was a clear association between socio-economic status and the likelihood of attendance at arts and cultural events or activities. The proportions who reported going to at least one type of performing art in the year prior to interview ranged from 76% of the managerial and professional groups to 52% of those in semi-routine and routine occupations (Figure 2.3).

**Figure 2.3: Percentage attending performing arts at least once in the last 12 months, by socio-economic status**



The proportions that attended non-performing arts or culture ranged from 90% to 68% (Figure 2.4).

**Figure 2.4: Percentage attending non-performing arts or culture at least once in the last 12 months, by socio-economic status**

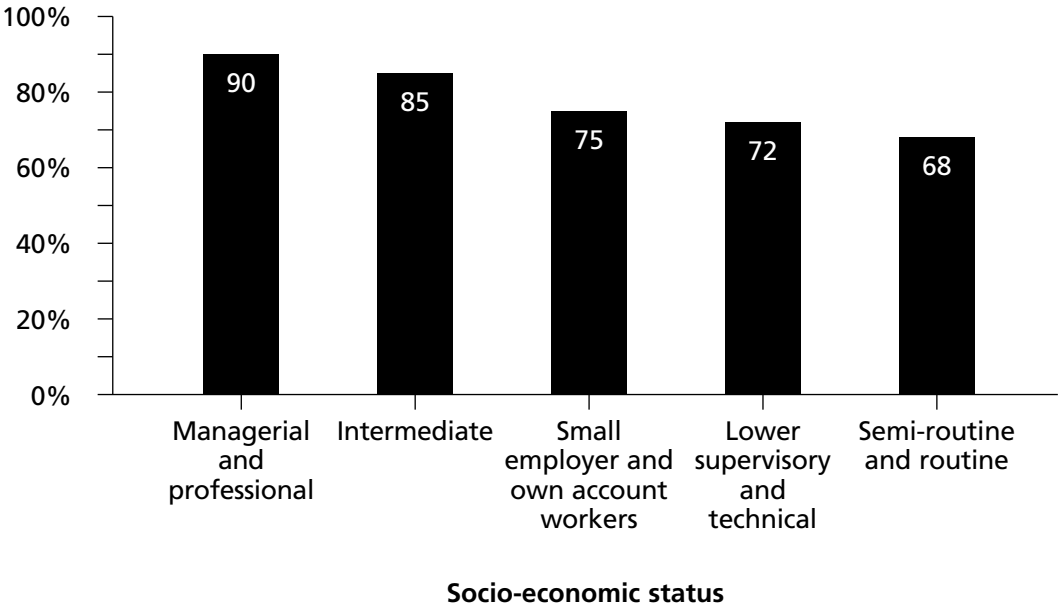


Table 2.7: Percentage attending performing arts, by socio-economic status

Type of performing art	Managerial, professional %	Intermediate %	Small employers and own account workers %	Low supervisory and technical %	Semi-routine and routine %	All (a) %
Carnival, street arts or circus (not animals)	30	25	27	26	25	27
Play or drama	40	28	22	14	15	26
Musical	35	26	22	16	16	24
Pop or rock	22	18	19	14	13	18
Live dance event	16	12	14	11	11	13
Cultural festival	16	11	8	6	8	12
Classical music	17	9	10	3	5	10
Opera or operetta	10	5	5	2	2	6
Jazz	9	5	7	3	2	6
Other live music event	35	27	29	23	21	28
<b>Base</b>	<b>3,987</b>	<b>1,620</b>	<b>850</b>	<b>1,103</b>	<b>3,626</b>	<b>12,233</b>

(a) All includes respondents who have never had an occupation or are unclassified. Percentages add to more than 100% because respondents could mention more than one event.

For attendance at individual events or activities, the most noticeable differences by socio-economic status were between managerial or professional, and other socio-economic groups. All differences were significant but, for performing arts, the strongest were going to see a play, attending a classical music concert and seeing a musical. Two-fifths (40%) of managers or professionals attended at least one play in the last year, compared with 19% of those in other socio-economic groups. For attendance at a classical music concert the proportions were 17% and 6%, respectively and for musicals 35% and 19%, respectively (Table 2.7).

Associations between socio-economic group and attendance at non-performing arts or culture were more pronounced, and again were all statistically significant. The most significant differences were again between managers and professionals and those in other socio-economic groups. For example, the former were more likely to visit a museum or art gallery (53% compared with 27% of all others) or to see an exhibition or other collection of art (33% compared with 13%). They were also more likely to see a film (71% compared with 51%) (Table 2.8).

Table 2.8: Percentage attending non-performing arts or culture, by socio-economic status

Type of non-performing art or culture	Managerial, professional %	Intermediate %	Small employers and own account workers %	Low supervisory and technical %	Semi-routine and routine %	All (a) %
Film at a cinema or other venue	71	63	51	49	46	59
Library	55	52	38	34	38	46
Museum or art gallery	53	37	32	23	22	36
Art, photography or sculpture exhibition	33	19	19	12	9	20
Craft exhibition	24	18	18	14	12	17
Event connected with books or writing	13	8	8	4	5	9
Event including video or electronic art	10	7	6	6	5	8
<b>Base</b>	<b>3,987</b>	<b>1,620</b>	<b>850</b>	<b>1,103</b>	<b>3,625</b>	<b>12,232</b>

(a) All includes respondents who have never had an occupation or are unclassified  
Percentages add to more than 100% because respondents could mention more than one event or activity



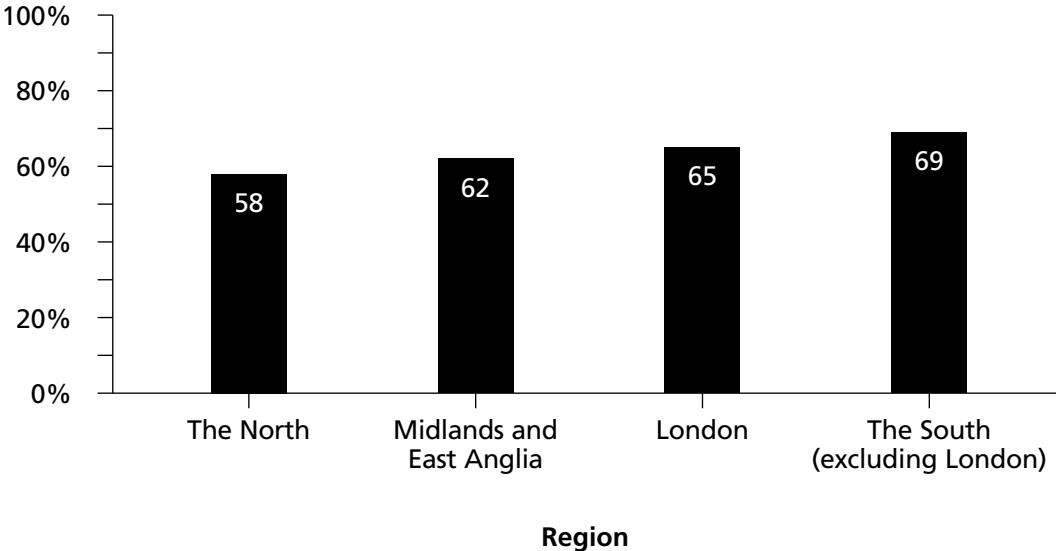
**Region**

The nine Government Office Regions were grouped into four geographical areas:

- the North: the North East, North West and Yorkshire and Humberside
- the Midlands and East Anglia: East Midlands, West Midlands and East Anglia
- London: Inner and Outer London
- the South: the South East and South West

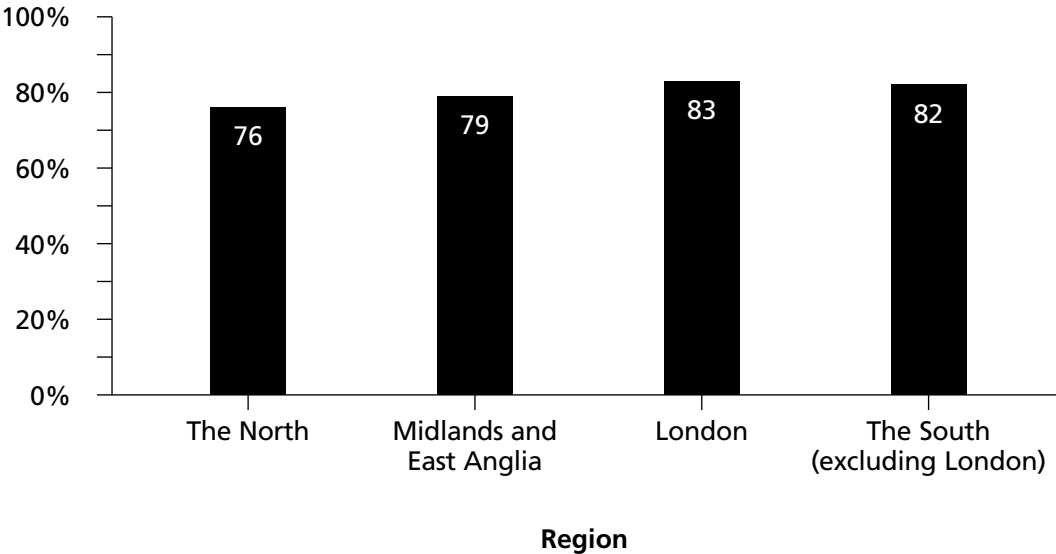
There were clear differences between area of residence and attendance at performing and non-performing arts or culture. The proportions attending performing arts ranged from 58% of those who lived in the North to 69% of people living in the South, excluding London (Figure 2.5).

**Figure 2.5: Percentage attending performing arts at least once in the last 12 months, by region**



The proportions attending non-performing arts or culture ranged from 76% of people in the North to 83% of those in London (Figure 2.6).

**Figure 2.6: Percentage attending non-performing arts or culture at least once in the last 12 months, by region**



People in the South were most likely to have attended at least one of the 10 types of performing art. The differences with other regions were most marked for attendance at carnivals, street arts or circuses. One-third (33%) of people from the South attended these compared with a quarter (24%) of those from all other regions. Attendance at plays (31% in comparison to 24%), musicals (29% compared with 23%) and classical music concerts (12% compared with 9%) was also higher among people living in the South. Opera or operetta, rock or pop concerts and 'other' live music events were again more likely to have been attended by residents in the South.

The exceptions to this general pattern were attendance at culturally specific events, jazz concerts and live dance events. These were all most likely to have been attended by Londoners. The difference was most marked for attendance at culturally specific events. Nearly one in five (19%) Londoners had attended at least one of these in the last year compared with 10% of people from all other regions. Eight per cent of Londoners went to a jazz concert compared with 5% of all residents of other regions. Londoners were also more likely to attend live dance events (15%, compared with 13% of others).

The pattern differed for non-performing arts or culture. Six of the seven types of non-performing art were most likely to have been attended by people who lived in London. In particular Londoners were more likely to have attended or visited:

- a film (66% did so in comparison to 57% of people from other regions)
- an arts exhibition (25% of Londoners compared with 19% of residents of other regions)
- a museum or art gallery (42% compared with 35%)
- a public library (52% compared with 45%)
- an event including video or electronic art (10% compared with 7%)

Londoners were also more likely than people from the other three regions to have attended literary events (11% compared with 8%). An exception was craft exhibitions, most likely to have been visited by respondents who lived in the South (22%) but least likely to have been visited by Londoners (12%). These differences may reflect the availability of different facilities in different regions. This is explored further in Chapter 7.

## 2.3 Perceived barriers to increasing attendance

Respondents were asked if they were interested in attending arts or cultural events more than currently, regardless of whether they had attended at all in the last year. Nearly two-thirds (65%, 7,876 respondents) said they would be interested in attending more – either more types of event or activity, or more frequently.

A higher proportion (69%) of those who had attended at least once than of those who had not attended at all in the last 12 months (40%) said that they would like to attend more if they could. Of those who had attended the performing arts in the preceding year, 72% said they would be interested in attending more, compared with 52% of those who had not. Similarly 70% of those who attended non-performing arts or culture said they were interested in attending more, compared with 45% of others.

This next section is based on the 7,876 participants who wished to increase their attendance. Most of these (90%) had attended at least one of the 17 events or activities listed in Tables 2.1 and 2.2, and would like to have attended more often. The remaining 10% had not attended any of these events or activities in the last 12 months but would be interested in doing so.

Respondents were shown a list of possible reasons that could prevent people visiting or attending events or activities and asked which applied to them. Difficulty in finding time, and cost, were important factors for all those who would like to have attended more. They were the most frequently cited reasons, mentioned by 60% and 43%, respectively (Table 2.9).

**Table 2.9: Reasons given for not attending more performing or non-performing arts or culture by those who wanted to attend more, and whether attended in the last 12 months**

<b>Reason</b>	<b>Did not attend arts events or activities %</b>	<b>Attended arts events or activities %</b>	<b>Total %</b>
Difficult to find time	34	62	60
Costs too much	34	44	43
Lack of transport	20	14	15
Family pressures	9	10	10
Don't have anyone to go with	9	9	9
Health is not good enough	29	6	8
Might feel uncomfortable or out of place	5	3	3
Not really interested	6	3	3
Other	9	9	9
None of these	4	5	5
<b>Base</b>	<b>784</b>	<b>7,076</b>	<b>7,860</b>

*Percentages add to more than 100% as respondents could give more than one reason*

There were, however, marked differences between those who did not attend any events or activities but would like to have done, and those who wished to attend more than they currently did. Difficulty in finding time was cited by fewer of those who expressed a desire to attend an art event or activity (34%) than of those who wished to increase their attendance (62%). Cost was also cited by fewer of those who would like to have attended (34% compared with 44%). The third most frequently mentioned reason, cited by 29% of those who had not been able to attend, was that their health was not good enough. However only 6% of those who had been able to attend in the last year gave this reason. This is explained in more detail in Chapter 5.

## 2.4 Perceived barriers to attendance for those who would like to have attended more

The reasons given by respondents for not attending more performing or non-performing arts or culture varied according to their age, sex and socio-economic status but were similar for area of residence. This analysis was also carried out separately for attendance at performing and attendance at non-performing arts or culture, but there was little difference between the groups.

### **Age**

Difficulty in finding time was the most frequently mentioned reason for not attending more arts events, by all age groups up to 64. For the older age groups, cost was mentioned most frequently by those aged 65 to 74 and health by those aged 75 and over. Cost was mentioned by at least a quarter of every age group.

### **Sex**

Women were more likely than men to cite most of the reasons given for not attending more arts events, particularly the cost (47% compared with 37%), not having anyone to go with (11% compared with 6%) and lack of transport (18% compared with 11% of men). Men were more likely to mention difficulty in finding time (63% compared with 57% of women).

### **Socio-economic status**

Difficulty in finding time was the most commonly mentioned reason for all groups. It was given by at least half of each group, most often by those in the higher socio-economic groups. Cost, mentioned by at least one-third of each group, was the second most common reason given by all groups, but there were no clear differences between the groups.

## 3 Participation in artistic and cultural activities

This chapter explores participation in arts and cultural activities, including the proportions and characteristics of respondents participating. Findings from the 2003 survey (Fenn et al, 2004) showed that nearly nine out of 10 people had participated in an arts activity in the last year. The two most widely reported activities were reading for pleasure (73%) and buying a novel, work of fiction, play or poetry (50%). In this report the focus is on a narrower range of activities, which excludes reading or buying literature. Instead, the chapter focuses on creative, sociable or physically demanding activities, because of their likely associations with health.

As with attendance, the types of activity which people with different characteristics choose, or are able, to participate in may vary. This would have implications for the provision of, and ease of access to arts facilities. It could also have implications for the general health of potential participants. For example, those with a longstanding illness may not be able to participate in dance activities and those who take part in sociable or creative activities may be more likely to have good general health.

Activities in which more than one of these elements is present have been assigned to the most relevant group. For example, performing in opera or operetta is assigned to the sociable, rather than physically demanding, group of activities.

### 3.1 Patterns of participation

Respondents were shown a list of activities and asked which, if any, they had taken part in themselves (as opposed to seeing performances or work by other people) during the last 12 months. From these, three types of activities were selected. The first group consisted of 10 creative activities, the second of 12 sociable activities and the third of a single physically demanding activity (dance). Some activities could belong to more than one group. As discussed later in the chapter, clubbing – which was assigned to the ‘sociable’ group of activities – might also involve dancing, which is physically demanding. Overall, almost three-fifths (58%) of respondents had participated in at least one of the 23 activities in the last year (Table 3.1).

**Table 3.1: Percentage participating in creative, sociable or physically demanding activities, in the last 12 months**

<b>Activity</b>	<b>Percentage</b>
<b>Creative activities</b>	
Painting, drawing, print making or sculpture	14
Textile crafts such as embroidery, sewing etc	13
Create original artworks or animation using computer	8
Photography as an artistic activity	7
Wood crafts	5
Other crafts such as calligraphy, pottery or jewellery making	4
Write any poetry	4
Write any stories or plays	4
Make any films or videos as an artistic activity	2
Write or compose a piece of music	2
<b>Sociable activities</b>	
Clubbing	25
Sing to an audience (or rehearse)	4
Play a musical instrument to an audience (or rehearse)	3
Sing with a choir or vocal group	3
Take part in another music-making group such as an orchestra, drama, theatre or dance group	2
Take part in drama, theatre or dance group	2
Perform or rehearse in a play or drama	2
Take part in a painting, drawing or other visual arts group	2
Take part in a photography or film-making group	1
Take part in a writers group	1
Perform in opera or operetta	*
Take part in another arts group	1
<b>Physically demanding activities</b>	
Ballet or other type of dance	19
<b>Base</b>	<b>12,228</b>

*Percentages add to more than 100% because respondents could mention more than one activity*

Respondents were most likely to have participated in just one type of activity in the last year. Altogether, one-third reported participating in creative activities only (17%), sociable activities only (13%) or dance activities only (5%). Less than a quarter (23%) said that they had taken part in more than one of the three types of activity and of these, only 5% took part in all three types of activity.

### **Characteristics of participants**

Taking all 23 activities together, men were less likely than women to have participated in any activity. In the year before their interview, just over half (54%) of the men in the survey had engaged in at least one of these activities compared with nearly two-thirds (64%) of the women.

Age was also very closely associated with participation in the arts. Older people were less likely to have engaged in any of the activities than younger people. The participation rate varied from 87% of those aged between 16 and 24 to 35% of people aged 75 and over.

Those in professional, managerial and intermediate groups were more likely to have participated in at least one of the activities (64% compared with 52% of those in the other socio-economic groups).

There was no association between participation and the region in which respondents lived.

## **3.2 Participation in creative activities in the last 12 months**

The report of the National Advisory Committee on Creative and Cultural Education (NACCCE) defines creativity as 'imaginative activity fashioned so as to produce outcomes that are both original and of value'. The report cites Goleman's (1996) writings on emotional intelligence, pointing to the changes and problems which can follow from difficulties in understanding or expressing our emotions. The process of artistic creation argues the report is a means of giving form and meaning to powerful emotional influences (Department for Education and Employment, 2001).

Of the three groups of activities, creative activities were engaged in the most commonly. Nearly two-fifths (37%) of respondents took part in at least one of the 10 activities listed in Table 3.1. The most widely reported of these was painting or drawing (14%) followed by textile crafts (13%).



Original art or animations were created using a computer by one in 12 (8%) respondents. There are indications that this activity has become more widespread even in the short intervals between the different surveys. Only 4% of respondents to the 2001 survey said that they created art using a computer, compared with 12% of those who took part in the later surveys. It is notable that nearly one in five (18%) respondents to the survey of Black and minority ethnic groups study created art in this way. This finding can be partly attributed to the fact that the Black and minority ethnic population is younger than the white population.

## **Characteristics of participants in creative activities**

### **Sex**

Taking the 10 activities together, 42% of women took part in creative activities compared with 32% of men. Participation rates did, however, vary according to the type of activity, with men reporting higher levels of engagement for five of the 10 activities. These were:

- using computers to generate original artworks or animation (9% of men had done so, in comparison to 7% of women)
- doing photography as an artistic activity (9% in comparison to 5%)
- making any films or videos as an artistic activity (3% in comparison to 1%)
- writing music (3% of men and 1% of women)
- doing wood crafts (8% compared with 2%)

Women were more likely than men to have engaged in four of the activities:

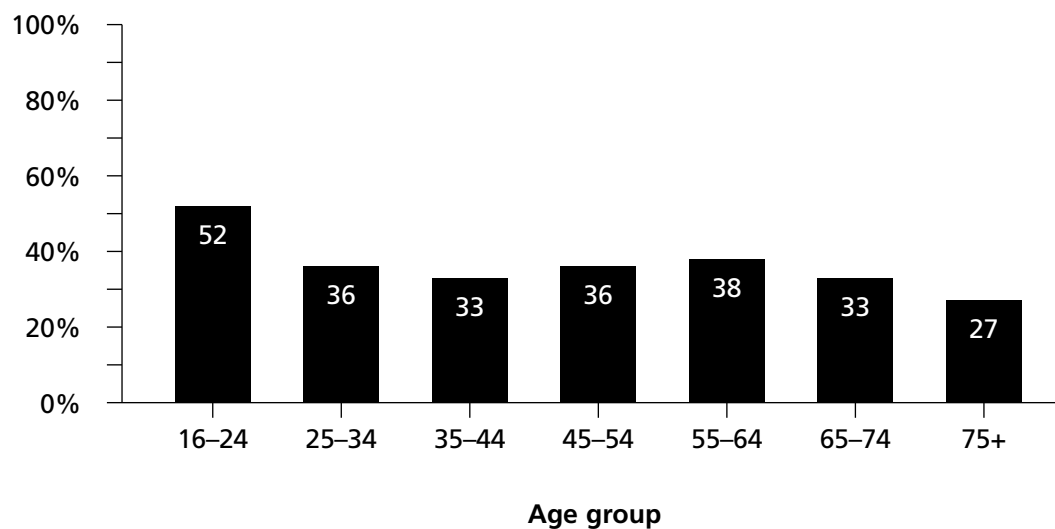
- textile crafts (24% had done so, compared with 1% of men)
- other crafts (6% of women and 2% of men)
- painting, drawing, print making or sculpture (16% in comparison to 12%)
- writing poetry (5% compared with 3%)

There was no difference in the proportions of men and women who wrote stories or plays.

### **Age**

Taking all the activities together, younger people were more likely than older people to have participated in at least one creative activity in the last 12 months. The proportion ranged from 52% of the 16–24 age group to 27% of people aged 75 and over (Figure 3.1).

**Figure 3.1: Percentage participating in at least one creative activity in the last 12 months, by age**



People in the 16–24 age group reported higher levels of participation in all 10 creative activities, with one exception. They were least likely to have done any textile crafts (11% compared with 14% of those in the older age groups). Those aged between 16 and 24 were more likely, for example, to have:

- painted, drawn, made prints or sculpted (28% compared with 12% of people aged 25 and over)
- used computers to create original artworks (18% compared with 6%)
- written music (6% compared with 1% of older people)
- made films or videos (5% compared with 1%)

Among those aged 25 and over, differences in participation levels between age groups were less marked (Table 3.2).

**Table 3.2: Percentage participating in creative activities in the last 12 months, by age**

Activity	16-24 %	25-34 %	35-44 %	45-54 %	55-64 %	65-74 %	75+ %	All %
Painting, drawing, print making or sculpture	28	16	13	11	11	9	7	14
Textile crafts such as embroidery, sewing etc	11	10	11	14	18	18	15	13
Creating original artworks or animation using computer	18	10	8	7	5	3	2	8
Doing photography as an artistic activity	10	6	6	8	8	6	5	7
Doing wood crafts	6	4	5	5	6	5	4	5
Doing other crafts such as calligraphy, pottery or jewellery making	4	5	4	4	4	3	3	4
Writing poetry	7	4	4	4	3	3	1	4
Writing stories or plays	6	4	4	3	3	3	2	4
Making films or videos as an artistic activity	5	2	2	1	2	1	*	2
Writing or composing a piece of music	6	2	1	1	*	*	*	2
<b>Base</b>	<b>1,291</b>	<b>2,206</b>	<b>2,435</b>	<b>1,871</b>	<b>1,647</b>	<b>1,501</b>	<b>1,274</b>	<b>12,225</b>

*Percentages add to more than 100% because respondents could mention more than one activity*

### **Socio-economic status**

Grouping together all types of creative activity, participation ranged from 42% of respondents classified as belonging to a managerial or professional group to 30% of those in semi-routine and routine groups.

Respondents in professional and managerial groups were less likely than other people to have worked with textiles (12% compared with 14%) but more likely to have:

- done photography as an artistic activity (10% compared with 5% of those in other groups)
- created an original artwork or animation using a computer (10% compared with 6%)
- written a story or play (5% of professional and managerial groups and 2% of other groups)
- written poetry (5% compared with 3%)
- done wood crafts (6% compared with 4%)
- done other crafts such as calligraphy, pottery or jewellery making (5% compared with 3%)

Managers and professionals were also more likely to have painted or drawn (15% compared with 12%) or to have made films or videos (2% compared with 1%). There were no noticeable socio-economic differences for those who wrote music (Table 3.3).

**Table 3.3: Percentage participating in creative activities in the last 12 months, by socio-economic status**

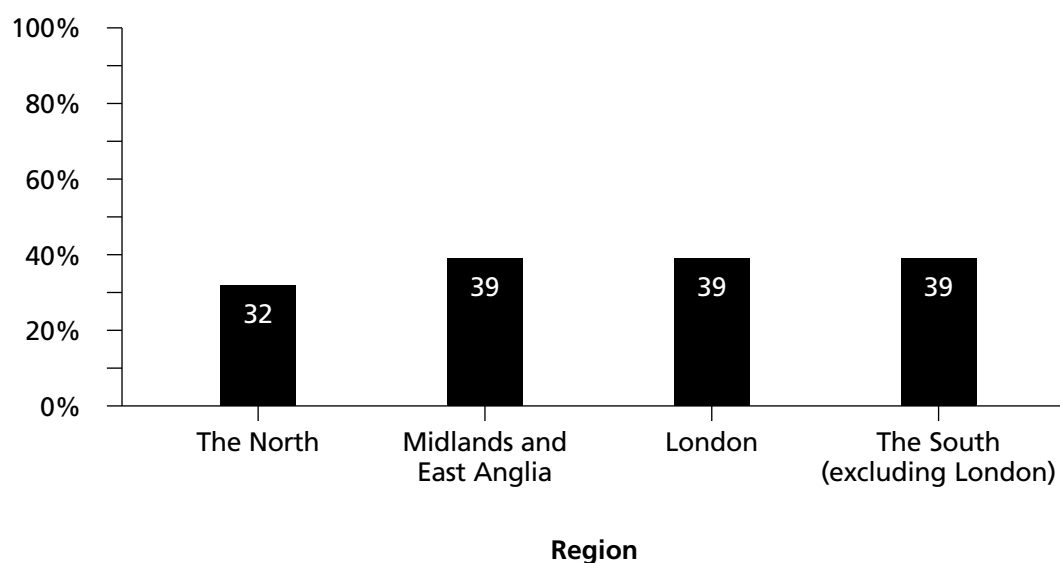
Activity	Managerial, professional %	Intermediate %	Small employers and own account workers %	Low supervisory and technical %	Semi-routine and routine %	All (a) %
Painting, drawing, print making or sculpture	15	14	11	12	12	14
Textile crafts such as embroidery, sewing etc	12	22	9	9	13	13
Creating original artworks or animation using computer	10	8	7	5	4	8
Doing photography as an artistic activity	10	5	9	5	4	7
Doing wood crafts	6	2	8	7	4	5
Doing other crafts such as calligraphy, pottery or jewellery making	5	5	4	2	3	4
Writing poetry	5	4	3	2	3	4
Writing stories or plays	5	3	3	3	2	4
Making films or videos as an artistic activity	2	1	2	2	2	2
Writing or composing a piece of music	2	2	2	*	1	2
<b>Base</b>	<b>3,985</b>	<b>1,618</b>	<b>850</b>	<b>1,103</b>	<b>3,623</b>	<b>12,225</b>

(a) All includes respondents who have never had an occupation or are unclassified  
Percentages add to more than 100% because respondents could mention more than one activity

## Region

Participation in a creative activity was associated with the region in which people lived. Only one-third (32%) of those who lived in the North took part in a creative activity compared with nearly two-fifths (39%) of those who lived in each of the other regions; the Midlands and East Anglia, London, and the South excluding London (Figure 3.2).

**Figure 3.2: Percentage participating in at least one creative activity in the last 12 months, by region**



People who lived in the North were also less likely to have taken part in most of the individual activities. However there were no differences between the regions in the proportion that did textile and other craft activities (aside from wood crafts). Apart from crafts and painting, Londoners were most likely to have engaged in each creative activity.

### 3.3 Participation in sociable activities in the last 12 months

Previous studies have shown associations between belonging to social networks and health: people with no personal support group or who do not take part in community activities were more likely than other people to report poor health, a longstanding illness and stress. The effect of the lack of a personal support group on health is particularly marked for men (Rainford et al, 2000).

Coulthard et al (2002) highlight recent evidence which suggests that social approaches to the organisation and delivery of public health may have considerable potential for improvement, particularly for those that suffer most disadvantages in society. There is now recognition that social approaches have considerable potential to contribute to health improvement and the reduction of health inequalities. We therefore looked at artistic activities in which respondents engaged with other people, as examples of social networks or community activities.

In our sample, one third (33%) reported having participated in at least one of the 12 sociable activities over the last 12 months. These included seven activities that respondents participated in through club or group membership:

- a choir or vocal group
- other music-making group such as an orchestra, drama, theatre or dance group
- a drama, theatre or dance group
- a painting, drawing or other visual arts group
- a photography or film-making group
- a writers group
- other arts group

The most commonly reported social activity was clubbing, by a quarter (25%) of all respondents. Each of the other activities was reported by fewer than one in 20 (Table 3.1).

## **Characteristics of participants in sociable activities**

### **Sex**

Taking the 12 activities with a sociable element together, 34% of men participated, compared with 32% of women. Participation rates also varied according to the type of activity, with women reporting higher levels of engagement in five of the 12 activities. Women, for example, were more likely than men to:

- sing choral music (4% had done so, compared with 2% of men)
- rehearse or perform in a play (3% of women and 2% of men)
- belong to a drama or dance group (3% compared with 2%)

Women were also more likely than men to belong to a painting or drawing group and to sing for an audience. There was a tendency for sex differences to be more marked in the four activities in which men were more likely to participate, for example:

- playing a musical instrument for an audience (4% of men had done so, compared with 2% of women)
- belonging to a music group, other than a choir (3% in comparison to 1% of women)

Men were also more likely than women to go clubbing or belong to a photographic or film-making group.

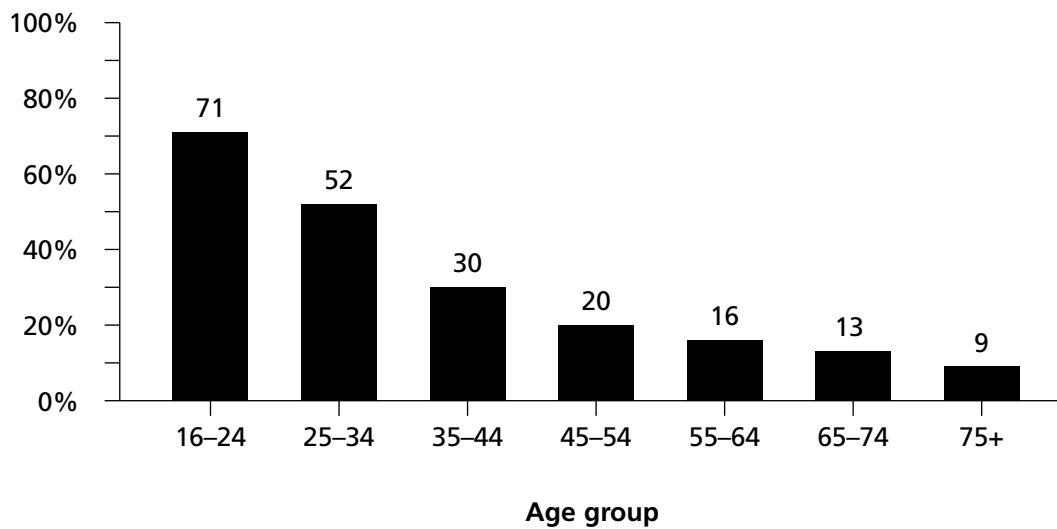
There were no significant sex differences for the remaining three sociable activities; performing in an opera or operetta, or belonging to a writers group or to any other group.

### **Age**

There was a clear association between age and participation in sociable activities, with younger people more likely than older ones to have participated in the last 12 months. The proportions that had done so ranged from 71% of the 16–24 age group to 9% of those aged 75 and above. The marked decline in participation among older people may be because these activities cannot, in general, be done at home (Figure 3.3).



**Figure 3.3: Percentage participating in at least one sociable activity in the last 12 months, by age**



People in the 16–24 age group reported higher levels of participation in eight of the 12 sociable activities. The differences were most marked for:

- clubbing (64% in comparison to 18% of those aged 25 and over)
- performing or rehearsing a play or drama (7% compared with 1%)
- taking part in a drama or dance group (6% compared with 2%)
- playing a musical instrument for an audience (7% compared with 2% of older people)
- taking part in a music group (5% of 16–24 year olds compared with 2% of other people)
- singing to an audience (8% compared with 4%)

There were no clear associations between age and singing in choirs or other vocal groups, writers or 'other' groups, or in opera or operetta (Table 3.4).

Table 3.4: Percentage participating in sociable arts activities in the last 12 months, by age

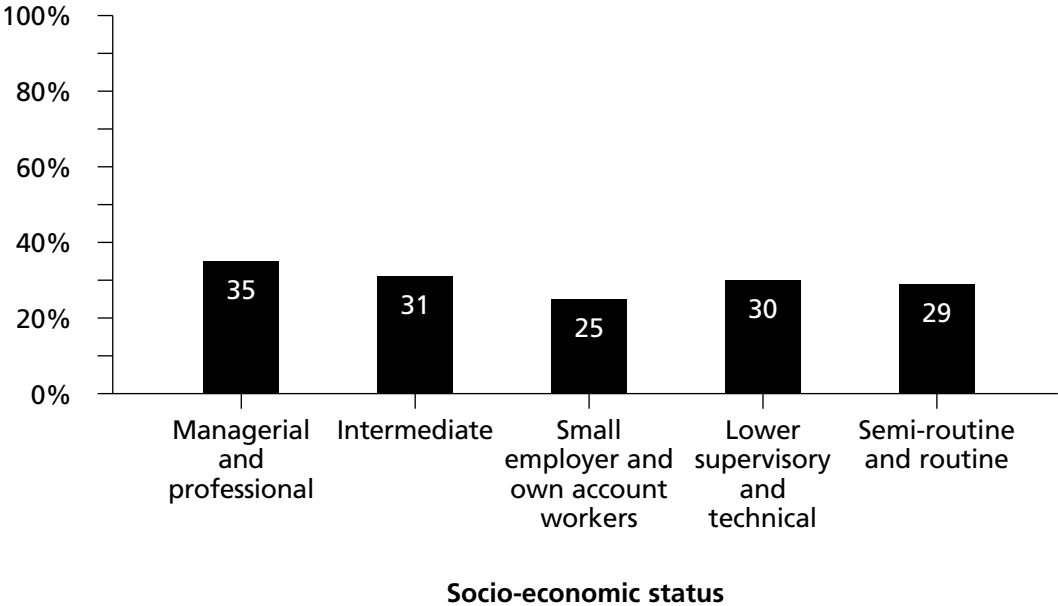
Activity	16-24 %	25-34 %	35-44 %	45-54 %	55-64 %	65-74 %	75+ %	All %
Clubbing	64	48	24	11	4	2	2	25
Sing to an audience (or rehearse)	8	3	3	4	5	5	3	4
Sing with a choir or vocal group	3	2	3	3	4	4	2	3
Play a musical instrument to an audience (or rehearse)	7	2	2	3	2	2	1	3
Take part in drama group	6	1	2	2	2	2	1	2
Perform or rehearse in a play or drama	7	1	2	2	2	1	1	2
Take part in another music-making group such as an orchestra, drama, theatre or dance group	5	1	2	2	1	1	1	2
Take part in a painting, drawing or other visual arts group	3	1	1	2	3	2	2	2
Take part in a photography or film-making group	2	1	1	1	1	1	*	1
Take part in a writers group	1	1	1	*	*	1	*	1
Take part in another arts group	1	1	1	2	2	2	1	1
Perform in opera or operetta	*	*	*	*	*	*	*	*
<b>Base</b>	<b>1,292</b>	<b>2,208</b>	<b>2,433</b>	<b>1,870</b>	<b>1,645</b>	<b>1,501</b>	<b>1,274</b>	<b>12,223</b>

Percentages do not add to 100% because respondents could mention more than one, or no activities

**Socio-economic status**

Grouping together all 12 types of sociable activity, engagement ranged from 35% of respondents classified as belonging to managerial or professional groups to 25% of small employers and own account workers (Figure 3.4).

**Figure 3.4: Percentage participating in at least one sociable activity in the last 12 months, by socio-economic status**



Differences by socio-economic group were less marked for sociable than for creative activities. There were no noticeable differences for participation in four of the 12 sociable activities, but those in professional and managerial groups were more likely than people in other groups to:

- sing in a choir (4% in comparison to 2% of those in other groups)
- play a musical instrument for an audience (4% in professional and managerial groups compared with 2% of others)
- sing for an audience (5% in comparison to 4%)

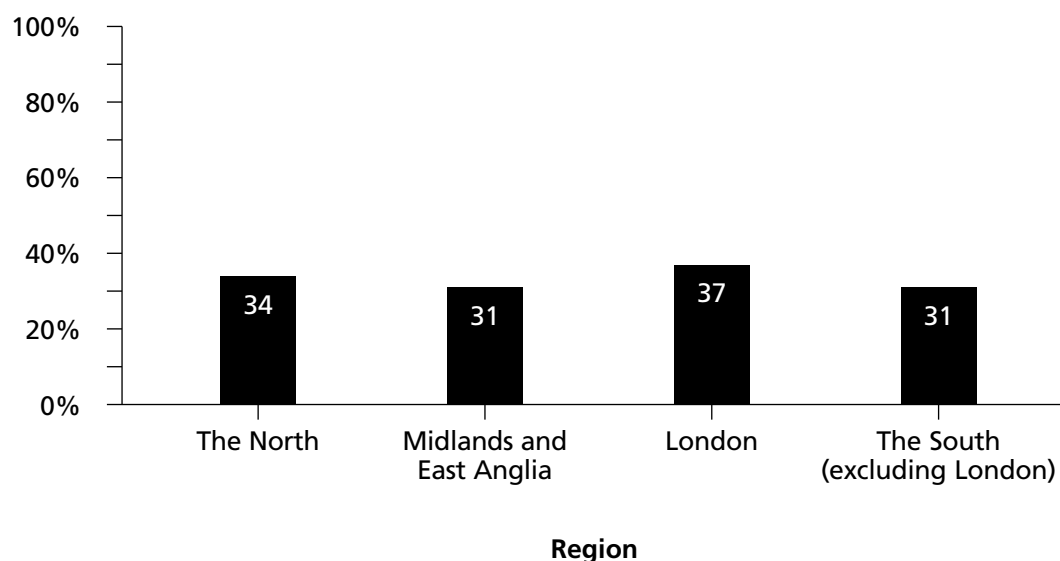
Managers and professionals were also more likely to belong to a painting or drawing, music, photography, film or writers group, and they were slightly more likely to go clubbing.

**Region**

The pattern of association between region and participation was different for sociable and creative activities. The main regional difference for creative activities was between those living in the North and all those from other

regions. In contrast, the main regional difference for sociable activities was between Londoners and people from other regions. Londoners were more likely to participate, 37% did so compared with 32% of people in other regions (Figure 3.5).

**Figure 3.5: Percentage participating in at least one sociable activity in the last 12 months, by region**



Londoners were the most likely to say that they had participated in six of the 12 sociable activities. They were more likely to sing with a choir or for an audience, to rehearse or perform in a play, or to belong to a drama, writing, photographic or film group than people from the other three regions. Those from the North were the most likely to have gone clubbing (28%). There were no differences between regions for the remaining five activities.

### 3.4 Participation in physically demanding (dance) activities in the last 12 months

It is well established that lack of physical activity is a risk factor for coronary heart disease and stroke: it is recommended that people do at least three 20-minute sessions of vigorous-intensity activity a week or five 30-minute sessions of moderate intensity activity a week to reduce the risk. Depending on the intensity at which people do it, dance – the focus of this section of the report – can count as either moderate or vigorous-intensity activity.

There is also evidence that weight-bearing exercise such as dance helps to maintain bone mass, and active men and women are less likely than those who are sedentary to experience osteoporotic fractures. This is particularly important for older people, who are at greater risk of losing bone mass and thus of sustaining fractures. Regular exercise is also associated with raised self-esteem and decreased levels of moderate depression and anxiety (Hansbro et al, 1996).

We therefore looked at dance as an example of physical activity. Just under one-fifth (19%) of respondents had danced in the last 12 months. This group of activities consists of ballet (less than 1%), jazz or street dance, African people's dance, South Asian or Chinese dance, fitness/aerobics dance, contemporary dance or any other dance. Apart from ballet, other types of dance are not reported on separately as the three different surveys asked about different types of dance. The figure of 19% is almost certainly an underestimate of the proportion of people who had danced in the last year; as reported in the previous section, 25% of the people who took part in the survey said they had been clubbing. Some of these will have danced while they were clubbing, but may not have recorded separately that they had danced. Eighty-seven per cent of clubbers did not report any other kind of dancing.

### **Characteristics of participants in physically demanding (dance) activities, in the last 12 months**

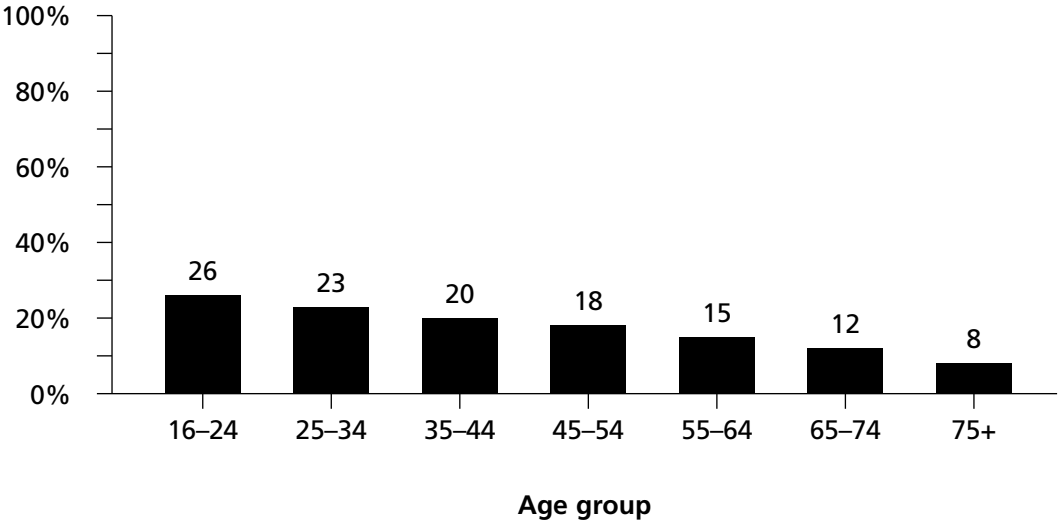
#### **Sex**

A higher proportion of women had participated in dance activities in the previous 12 months, 26% compared with 10% of men.

#### **Age**

Younger people were more likely than older ones to have participated in at least one dance activity in the last 12 months. The proportion doing so ranged from 26% of the 16–24 age group to 8% of people aged 75 and above (Figure 3.6).

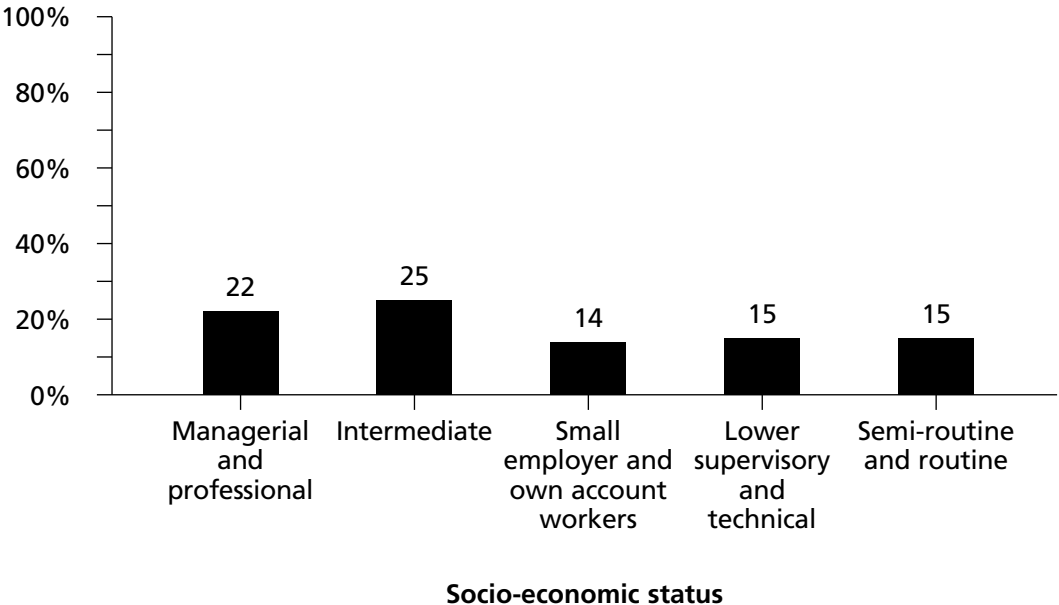
**Figure 3.6: Percentage participating in at least one dance activity in the last 12 months, by age**



**Socio-economic status**

Participation in dance was highest among respondents classified as belonging to managerial or professional groups (22%) and intermediate groups (25%) and was lower for the other socio-economic groups, between 14% and 15% (Figure 3.7).

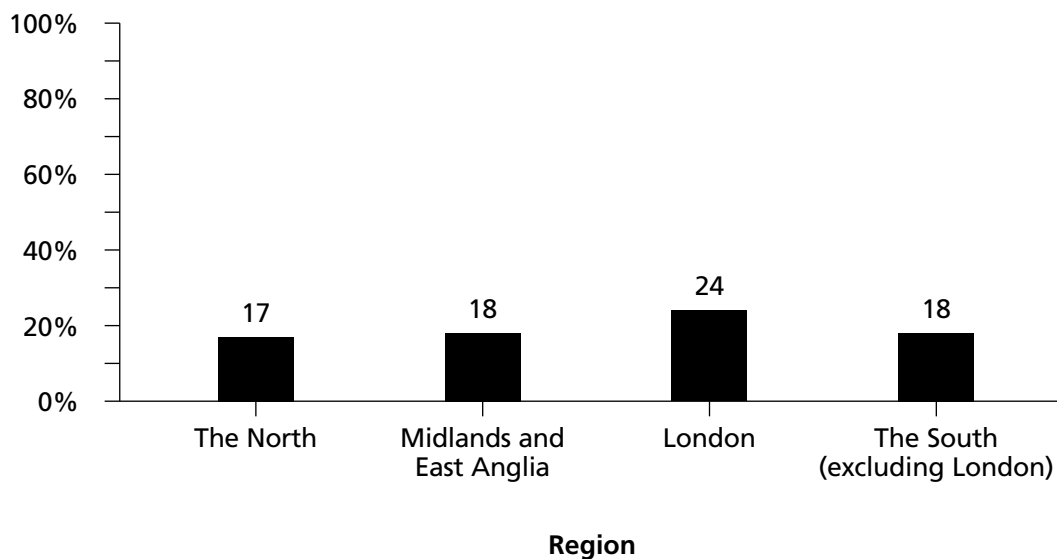
**Figure 3.7: Percentage participating in at least one dance activity in the last 12 months, by socio-economic status**



## Region

The pattern of participation in dance by region was similar to that for sociable activities. That is, Londoners were more likely to have taken part in a dance activity: 24% did so compared with 18% of people from the other regions (Figure 3.8).

**Figure 3.8: Percentage participating in at least one dance activity in the last 12 months, by region**



## 3.5 Participation and attendance

There was some crossover between attendance at, and participation in, the arts. The most common pattern of engagement, reported by over half (55%) of respondents, was to have attended at least one of the arts events or activities described in Chapter 2 in the last year, and to have participated in at least one of the activities listed in this chapter. Only one-ninth (11%) of those surveyed had neither attended, nor participated in, the arts in the 12 months prior to interview. One in three (34%) either attended or participated in an artistic event or activity but did not do both.

This pattern was similar when the groups of activities were taken separately. The strongest association was between attendance and participation in creative activities. Attenders were more likely to participate in creative activities (40% compared with 18% of those who did not attend), sociable activities (37% compared with 9%) and in dance activities (21% compared with 4%).

## 4 Viewing and listening through audiovisual and online media

Access to technological platforms such as the World Wide Web, digital broadcasting and DVDs is increasingly widespread. The majority of households now have access to media that make it possible to listen to or watch the arts on demand. Figures from the 2002 General Household Survey show that 99% of households in Great Britain had a television, 89% a video recorder and 83% a CD player (Rickards et al, 2004). The same survey also showed that 44% of households could access the internet. These figures have increased each year in recent years (Walker et al, 2001; Walker et al, 2002).

The increased availability of the arts, in forms that are not dependent on people's ability to get out, may have implications for those with a limiting longstanding illness, and for providers of artistic and cultural facilities.

This chapter looks at the proportions of people that had experienced the arts through various audiovisual media. It describes the characteristics of respondents who accessed the arts through audiovisual media in the last four weeks before interview, and online in the last 12 months. Comparisons are made with attendance at performing and non-performing arts or culture.

### 4.1 Patterns of access to artforms through audiovisual media in the last four weeks, and online media in the last 12 months

Respondents were asked whether they had accessed the arts through:

- CDs, mini discs, tapes or records in the last four weeks
- the radio in the last four weeks
- television, videos or DVDs in the last four weeks
- the internet in the last 12 months

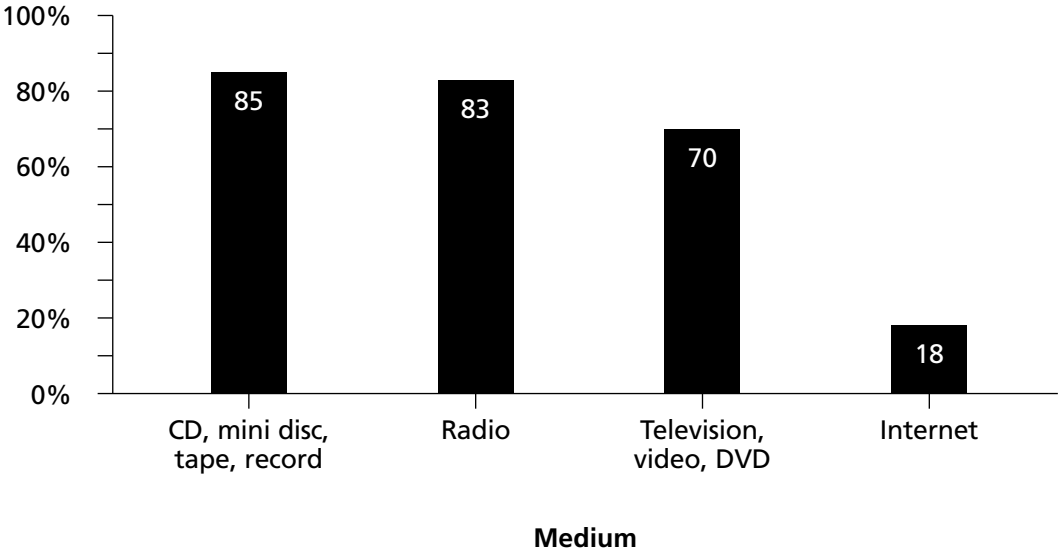
In total, 95% of respondents had accessed the arts through one or more of these four audiovisual and online media. The most commonly reported pattern, by over two-fifths (44%) of respondents, was to have accessed the arts through all three audiovisual media in the last four weeks, but not



through the internet in the last year. Fewer than one in seven (13%) made use of all four means of access but most (60%) had used at least three types of media to access the arts.

Respondents were most likely to access the arts by listening to CDs, mini discs, tapes or records (85%), followed by listening to the radio (83%) and watching television, videos or DVDs (70%). Relatively few, 18%, had used the internet to view or listen to the arts in the 12 months before the survey (Figure 4.1).

**Figure 4.1: Percentage accessing the arts through audiovisual media in the last four weeks and online media in last 12 months**



Taking all forms of media access together, there was no difference overall between respondents to the three surveys. There were, however, differences in the type of medium used between people from Black and minority ethnic groups and others. Black and minority ethnic respondents were less likely than white people to have listened to the arts on CDs, mini discs or tapes (83% compared with 85%). They were, however, more likely to have listened to arts programmes on the radio (88% compared with 82% of white respondents) and watched the arts on television (73% compared with 70%). However, it is worth bearing in mind when interpreting these results that the Black and minority ethnic population is younger than the white population. It is also characterised by great diversity of education, income and religion.

The most notable difference was that Black and minority ethnic respondents were much more likely than white respondents to have accessed the arts through the internet in the last year (30% compared with 16%). This, again, probably reflects their age profile. There was also a trend for increasing proportions of respondents to access artforms online. One in eight (12%) people who took part in a pilot study in 2000, 14% of respondents to the 2001 survey and 21% of respondents to the 2002 or 2003 surveys had used the internet to view or listen to the arts in the year before they were interviewed.

Artforms were most likely to have been accessed on the internet by:

- men (22% compared with 14% of women)
- people aged between 16 and 24 (46% in comparison to 13% of older people)
- those in managerial and professional groups (21% compared with 13% of those in other socio-economic groups)
- Londoners (23% compared with 16% of people in other regions)

## 4.2 Type of artform accessed

Respondents were most likely to access the following artforms:

- rock or pop music (66% of respondents listened to CDs, mini discs, tapes or records, 64% to the radio and 47% watched on television, videos or DVDs)
- classical music (40% listened to CDs, 32% to the radio)
- plays (25% watched them on television)
- soul music (20% listened to this kind of music on CDs)

**Table 4.1: Percentage accessing arts through audiovisual and online media, by artform**

Artform	Last four weeks			Last 12 months
	CD's mini discs, tapes, records %	Radio %	TV, videos, DVDs %	Internet %
Rock or pop	66	64	47	12
Classical music	40	32	15	2
Soul and dance music	20	16	11	4
Jazz	18	14	5	2
Poetry or book reading	13	6	2	2
Opera or operetta	11	6	5	*
World music	10	7	6	3
Play, excluding films, TV dramas and comedies	5	11	25	1
Dance	n/a	n/a	11	2
Asian radio	n/a	6	n/a	n/a
Black radio	n/a	4	n/a	n/a
Works of visual art	n/a	n/a	n/a	5
None of these	15	17	30	69
<b>Base</b>	<b>12,223</b>	<b>12,181</b>	<b>12,220</b>	<b>12,221</b>

*Percentages add up to more than 100% because respondents could mention more than one artform*

Broadly, and as expected, the proportions of those who listened to audio artforms were similar across different audio media. Relatively high proportions listened to music (rock or pop, classical, soul or dance, jazz or world) on CD or radio and relatively low proportions watched music on television, video or DVD or on the internet.

Of the two audiovisual artforms (plays and opera or operetta) plays were most likely to be watched on television (25%), and least likely to be listened to on CDs or the radio (5% or 11% respectively). Opera or operetta were however, listened to by 11% of respondents on CDs whereas 5% watched them on television. Visual works of art were viewed on the internet by 5% of respondents.

## 4.3 Characteristics of viewers and listeners

### Sex

Similar proportions of men and women had accessed the arts through at least one of the four types of audiovisual and online media. However, men were more likely to have listened to CDs, mini discs or tapes (86% compared with 84% of women) or to the radio (84% compared with 82%) or to have accessed the arts through the internet (22% compared with 14% of women).

### Age

There was a clear relationship between age and arts consumption through audiovisual media. Taking the four types of media together, accessing the arts through these media was most widespread among the youngest respondents. Nearly all of those aged between 16 and 24 (99%) accessed the arts in this way. Although proportions were high in all age groups, there was a steady decline with age to 85% of those aged 75 and over. This was also true of access through CDs, the radio and television. Use of the internet was much higher in the 16–24 age group. Nearly half (46%) of 16–24 year olds accessed the arts through the internet compared with 13% of people aged 25 or over (Table 4.2).

**Table 4.2: Percentage viewing and listening to the arts through audiovisual or online media, by age**

Activity	16–24 %	25–34 %	35–44 %	45–54 %	55–64 %	65–74 %	75+ %	All %
CD, mini disc, tape, record	96	95	92	89	79	67	54	85
Radio	93	91	89	86	78	65	58	83
TV, video, DVD	81	73	69	69	68	66	62	70
Internet	46	26	17	12	5	2	2	18
<b>Base</b>	<b>1,275</b>	<b>2,195</b>	<b>2,429</b>	<b>1,868</b>	<b>1,646</b>	<b>1,494</b>	<b>1,268</b>	<b>12,175</b>

*Percentages add up to more than 100% because respondents could mention more than one medium*

### **Socio-economic status**

Consumption of the arts through audiovisual and online media varied between socio-economic groups, both overall and for each of the four types of medium. People in managerial and professional groups were most likely to access the arts through media: 98% had used at least one type of medium to view or listen to the arts compared with 94% of those in other socio-economic groups. Again, it is notable that, despite differences, the proportions were high in all social groups.

Those in higher socio-economic groups were also the most likely to have viewed or listened to artistic material through the individual media. In particular, people in managerial and professional groups were more likely than those in other groups to have listened to or viewed the arts on CD (92% compared with 81%), the radio (88% compared with 80%) and the internet, 21% compared with 13% (Table 4.3).

**Table 4.3: Percentage of respondents viewing and listening to the arts through audiovisual or online media, by socio-economic status**

Media	Managerial, professional %	Intermediate %	Small employers and own account workers %	Low supervisory and technical %	Semi-routine and routine %	All (a) %
CDs, mini discs, tapes, records	92	87	81	82	80	85
Radio	88	83	84	80	78	83
TV, videos, DVDs	73	71	65	70	68	70
Internet	21	16	10	12	12	18
<b>Base</b>	<b>3,975</b>	<b>1,608</b>	<b>844</b>	<b>1,098</b>	<b>3,611</b>	<b>12,175</b>

(a) All includes respondents who have never had an occupation or are unclassified  
Percentages add up to more than 100% because respondents could mention more than one medium

## **Region**

Taking all four means of access to the arts through media together, there were small but significant differences by region. People who lived in the South (excluding London) were the most likely to access the arts in this way (97%) while those who lived in the North or in London were the least likely (both 95%). Despite these differences, all but a small percentage used at least one of these media in all regions.

There was no variation between regions in the proportions that listened to the arts on CD, mini disc or tape, or watched them on television, video or DVD. However, people who lived in the North were least likely to listen to arts programmes on the radio (81% compared with 84% of those in other regions). Londoners were most likely to use the internet to access the arts (23% compared with 16% of those in other regions).

## **4.4 Overall patterns of engagement in the arts**

This section examines the relationship between attendance and media access to the arts in some detail. Those who are unable, perhaps because of ill health, or disinclined to go out to artistic or cultural events or activities may choose to access them online or through other media.

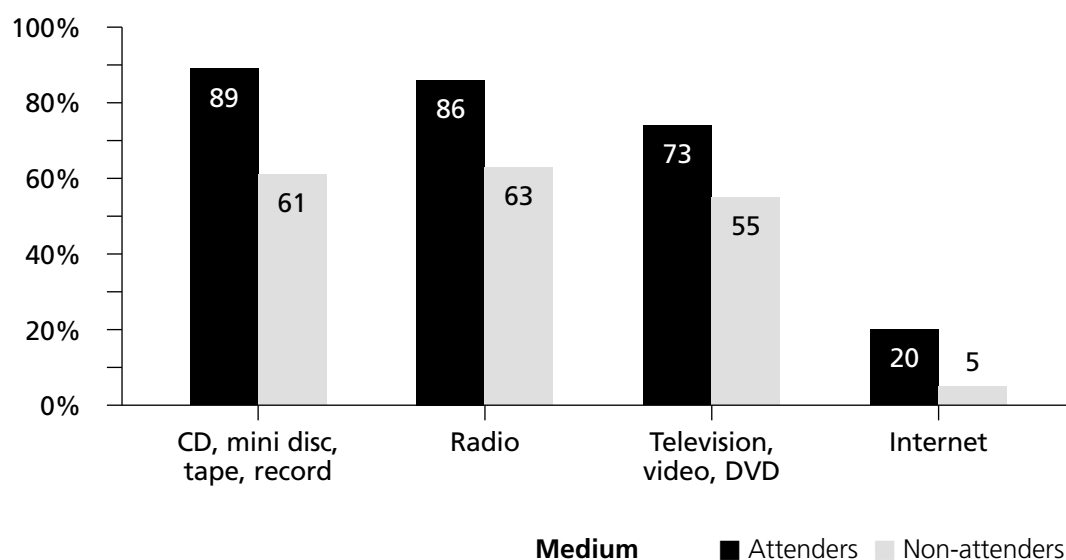
### **Access to the arts through audiovisual and online media, and attendance**

Among people who had attended either performing or non-performing arts or culture at least once in the last year, 97% had also accessed the arts through audiovisual media in the last four weeks, or the internet in the last year. Fewer non-attenders, 84%, accessed the arts through these media. People who attended performing arts were also more likely than non-attenders to access the arts through audiovisual or online media (98% in comparison to 91%), and the proportions were similar for attendance at non-performing arts or culture (98% of attenders compared with 87% of non-attenders). An important point, however, is that the proportions were high, even among non-attenders.

This general pattern was true across all four types of audiovisual or online media. Of those who reported attending any arts events or activities in the last year, 89% had listened to the arts on CD, mini disc, tape or record compared with 61% of people who had not attended in the last year. Similarly 86% of attenders had listened to arts programmes on the radio,

compared with 63% of those who had not attended in the last year. Likewise 73% of attenders had watched the arts on television, video or DVD compared with 55% of non-attenders. Most notably one in five (20%) of attenders had listened to or viewed the arts on the internet compared with 4% of non-attenders (Figure 4.2).

**Figure 4.2: Percentage viewing or listening to the arts through audiovisual or online media, by attendance**



The patterns of listening or viewing through each type of medium were similar for attendance at performing and non-performing arts or culture.

### **Attendance, participation and access through audiovisual or online media**

Overall, 98% of all the people who took part in the survey engaged in the arts in at least one of the ways described in this report. Although this percentage includes a few respondents (11%) who only engaged in one type of event or activity, the majority (54%) had been involved in a diversity of events and activities. This group had both attended performing or non-performing arts or culture and participated in creative, sociable or dance activities in the last 12 months. They had also accessed artforms through audiovisual media in the last four weeks, or online in the last year.



Respondents who were unable or unwilling to access artforms by going out to performing or non-performing arts or culture do not appear to have compensated for this by accessing similar artforms through audiovisual or online media. Non-attenders were less likely than arts attenders to access arts through these media.

It was shown in Chapter 2 that older people, particularly those over the age of 75, were less likely to attend performing or non-performing arts or culture than younger people. The reason most commonly given by those who wanted to attend but were unable to was 'health was not good enough'. Cost was also an important reason for not attending. It might be expected that this group of respondents in particular would access the arts through audiovisual or online media in place of attending performing and non-performing arts or culture. However, older people aged over 75 were less likely than others to access the arts through these media. Nevertheless, the majority listened to or watched artforms on CD, the radio and television.

# 5 The arts, health and illness

This chapter explores associations between respondents' health and illness, and the extent to which they engage in arts. It examines barriers to attending performing and non-performing arts or culture and describes differences by personal characteristics.

It is important to note that any associations found between health and engagement in the arts may be due to age or other respondent characteristics. For example, if people who engage in the arts were found to be in better health than others, this may be due to age rather than to the extent of their involvement in the arts. (It was shown in Chapters 2, 3, and 4 that younger people were more likely to engage in the arts). Chapter 6 and Chapter 7 take account of the effects of age and other factors and investigate associations between engagement in the arts, and illness and health respectively.

## 5.1 Health and illness

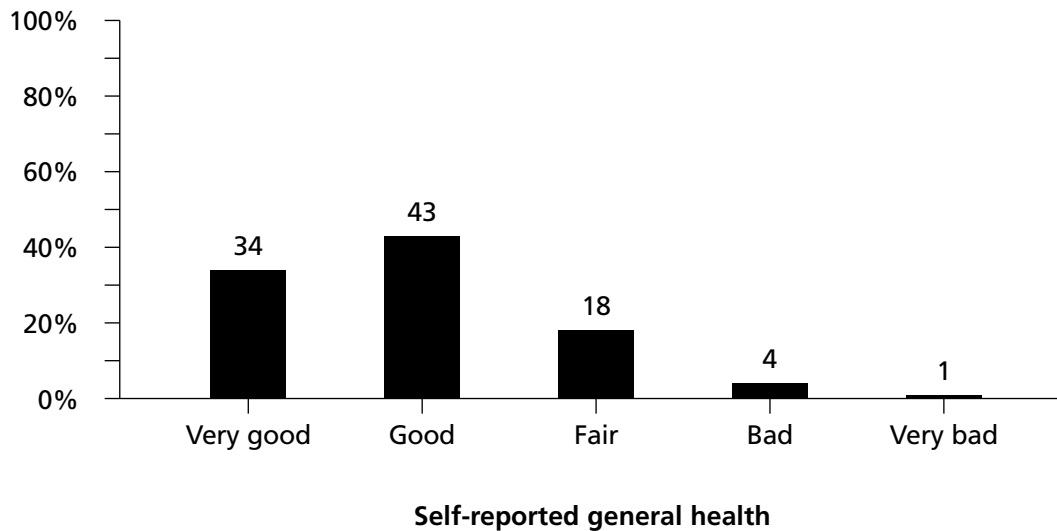
### **Self-reported general health**

Respondents to 2002 and 2003 surveys were asked a single well-validated<sup>3</sup> question about their own health: 'How is your health in general? Would you say it was very good, good, fair, bad or very bad?'. The most common response, given by 43% of the 6,490 respondents who were asked this question, was that their health was good. Only 5% said that their health was bad or very bad (Figure 5.1).

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<sup>3</sup> This question is recommended by the World Health Organisation for surveys of the general population.

**Figure 5.1: Self-reported general health**



### **Longstanding illness**

Respondents to all three surveys were asked if they had any longstanding illness or disability. 'Longstanding' was defined as 'anything that has troubled you over a period of time or that is likely to affect you over a period of time'. People who said they had a longstanding condition were asked whether it limited their activities in any way.

In common with other surveys, nearly one-third (29%) of the people interviewed reported a longstanding illness or disability. Of these, two-thirds (67%), 19% of all respondents, reported an illness that limited their activities in some way. Over two-thirds (71%) did not report a longstanding illness.

It should be noted that the presence of a longstanding illness is not always indicative of a person's perception of their health. For example, many patients consult their doctors about symptoms for which no underlying organic symptoms can be detected. Conversely, some people with serious illnesses regard them as part of normal life or are unaware of them (Jenkinson, 1994). Although the association between self-reported general health and longstanding illness was strong, not all of those with a longstanding illness that limited their activities were negative about their health; a quarter (25%) said that their health was either good or very good (Table 5.1).

**Table 5.1: Longstanding illness by self-reported health**

Health in general	Limiting longstanding illness %	Non-limiting longstanding illness %	No longstanding illness %	All %
Very good	5	14	43	34
Good	20	51	47	43
Fair	46	30	10	18
Bad	21	5	*	4
Very Bad	8	*	*	1
<b>Base (a)</b>	<b>1,225</b>	<b>501</b>	<b>4,461</b>	<b>6,187</b>

(a) Base numbers include respondents who were asked about their health in general (2002 and 2003 surveys)

## 5.2 Health and illness by personal characteristics

### Sex

There was no difference between the self-reported health status of men and women. Likewise similar proportions of men and women reported longstanding illness, and limiting longstanding illness.

### Age

In all age groups, the majority of respondents reported that their general health was good or very good. Nevertheless self-reported health was strongly associated with age. The proportion that reported very good health or good health fell from 88% of those aged between 16 and 24 to 52% of people aged 75 or over. Fewer than 2% of those in the youngest age group reported very bad or bad health. This rose to 16% of those aged 75 or over.

Unsurprisingly, limiting and non-limiting longstanding illness were also strongly associated with age. The proportion of respondents that reported any sort of longstanding illness rose from one in eight (12%) of people aged under 25 to three-fifths (60%) of those who were 75 or over. The increase with age in the proportion of respondents who experienced limitations in their activities because of a longstanding illness was also marked, from 6% of those under 25 to nearly half (48%) of people aged 75 or over.

### **Socio-economic group**

Self-reported general health was also closely associated with socio-economic group. Those in managerial and professional groups were more likely to report very good or good health. For example, 84% of people in managerial and professional groups reported very good or good health in comparison to 72% of those in other groups. Very bad health was most likely to be reported by the lower supervisory and technical groups (3%).

Managers and people in professional groups were also the least likely to report any sort of longstanding illness (24%) or limiting longstanding illness (14%). Those in lower supervisory, technical, semi-routine and routine occupations were more likely than others to report a longstanding illness (35% compared with 26% of others) or a limiting longstanding illness (25% compared with 16%).

### **Region**

Self-reported general health varied by region, with people who lived in the South generally reporting better health than those who lived in the North. For example, the proportion that reported very good or good health rose from 73% of those who lived in the North to 81% of residents of the South (excluding London).

Londoners were least likely to report a longstanding illness (22% compared with 30% of those from other regions), and were also least likely to report a limiting longstanding illness (15% compared with 20%).

## **5.3 Attendance, health and illness**

### **Self-reported health and attendance at performing and non-performing arts or culture**

There were clear associations between self-reported health and attendance at arts events or activities. People who attended performing or non-performing arts or culture in the last year were more likely to report better health. Altogether four-fifths (80%) of those who had attended at least once said that their health was good or very good compared with 54% of those who had not attended at all. These associations were slightly less marked for attendance at performing arts (Table 5.2). However, as age is associated with both health and attendance, age should be taken into account. This is discussed in Chapters 6 and 7.

**Table 5.2: Attendance at performing and non-performing arts or culture in the last 12 months, by self-reported general health**

Health in general	Attended performing arts at least once		Attended non-performing arts or culture at least once		Attended either at least once		All %
	Yes %	No %	Yes %	No %	Yes %	No %	
Very good	38	28	37	21	36	19	34
Good	44	39	44	37	44	35	42
Fair	15	23	15	27	16	30	18
Bad	3	7	3	10	3	11	4
Very bad	*	3	1	5	1	5	2
<b>Base</b>	<b>3,909</b>	<b>2,272</b>	<b>4,894</b>	<b>1,287</b>	<b>5,253</b>	<b>928</b>	<b>6,181</b>

### **Perceived barriers to attendance and self-reported health**

Among people who were asked about their health, two-thirds (4,117 respondents) said they would like to attend more (or some) art events or activities if they could. This group was more likely to report very good or good health. Nearly four-fifths (79%) rated their health as very good or good, compared with 72% of those who did not wish to attend more than they already did.

The 92 respondents who reported very bad health were not only less likely to have attended any events or activities in the last year (51% compared with 87% of those who reported better health), but were also less likely to want to attend more. Just over half (51%), compared with two-thirds (67%) of those in better health, would like to attend more (often) if they could.

Respondents were asked what their reasons were for not attending performing or non-performing arts or culture as much as they would like. The most common reasons, given by those who wanted to attend more, were 'it's difficult to find time', by 61%, and 'it costs too much', by 41% of respondents. The reasons given varied by health. People who reported very good, good or fair health were most likely to mention the difficulty of finding time, but those who described their health as bad or very bad were most likely to say 'my health is not good enough', 61% and 89% respectively (Table 5.3).

**Table 5.3: Self-reported general health, by reasons given for not attending more events or activities by those who wanted to attend more**

Reasons for not attending (more) events or activities	Self-reported health					All %
	Very good %	Good %	Fair %	Bad %	Very bad %	
It's difficult to find time	67	65	49	29	26	61
It costs too much	38	42	44	42	40	41
Lack of transport	12	14	20	23	32	15
Family pressures	21	20	14	11	11	19
I don't have anyone to go with	8	10	12	11	6	10
My health is not good enough	1	2	15	61	89	7
I might feel uncomfortable or out of place	3	3	5	8	6	4
I'm not really interested	3	4	3	1	2	3
Other	7	7	8	7	4	7
None of these	5	6	3	2	0	5
<b>Base</b>	<b>1,420</b>	<b>1,744</b>	<b>703</b>	<b>186</b>	<b>63</b>	<b>4,116</b>

*Percentages add to more than 100% because respondents could give more than one reason*

### **Attendance at performing and non-performing arts or culture and longstanding illness**

There was also a strong association between longstanding illness and attendance at arts and cultural events and activities in the last year, particularly non-performing arts or culture. While 90% of those with no longstanding illness or disability had attended at least one event or activity, 85% of people with a non-limiting condition and 71% of respondents with a limiting illness had done so. The differences were most pronounced by presence of a limiting, rather than any, longstanding illness (Table 5.4).

**Table 5.4: Longstanding illness, by attendance at performing and non-performing arts or culture in the last 12 months**

Event or activity	Limiting longstanding illness %	Non-limiting longstanding illness %	No longstanding illness %	All %
Any performing arts	47	63	68	63
Any non-performing arts or culture	62	77	84	79
Any performing or non-performing arts or culture	71	85	90	86
<b>Base</b>	<b>2,678</b>	<b>1,196</b>	<b>8,327</b>	<b>12,201</b>

Some caution should be exercised when interpreting these findings, as the likelihood of reporting a longstanding condition increases with age. As already stated, only 6% of the 16–24 age group reported a limiting longstanding illness, compared with 48% of those aged 75 and over.

Although the association between the presence or absence of a limiting longstanding illness and attendance at performing or non-performing arts, could be taken as evidence that attending the arts prevents longstanding illness, the wording of the survey questions indicates that some people are prevented from attending arts events by their illness.

### **Perceived barriers to attendance and longstanding illness**

This section is based on the 7,876 respondents who said that they would attend more if they could. People with a limiting longstanding illness were least likely to say this (60% compared with 66% of other respondents) but were more likely than others to cite their health as a reason for not attending (more): 37% mentioned this, compared with 1% of other respondents (3% and 1% respectively of those with a non-limiting, or with no longstanding condition). They were, however, much less likely than others to cite lack of time as a reason for not attending more events or activities (33% compared with 66% of those without a limiting condition). This, again, is likely to be age-related as older people are more likely to have retired, and may have more free time than those who are working or caring for dependent children (Table 5.5).



**Table 5.5: Longstanding illness, by reasons given for not attending more performing or non-performing arts or culture by those who wanted to attend more**

Reason for not attending (more)	Limiting longstanding illness %	Non-limiting longstanding illness %	No longstanding illness %	All %
It's difficult to find time	33	57	66	60
It costs too much	43	43	43	43
Lack of transport	23	19	13	15
Family pressures	5	7	11	10
I don't have anyone to go with	13	12	8	9
My health is not good enough	37	3	1	8
I might feel uncomfortable or out of place	6	3	3	3
I'm not really interested	2	3	3	3
Other	9	10	9	9
None of these	4	5	6	5
<b>Base</b>	<b>1,594</b>	<b>734</b>	<b>5,513</b>	<b>7,841</b>

*Percentages add to more than 100% because respondents could mention more than one reason*

People reporting a longstanding condition were more likely than others to mention lack of transport as a reason for not attending; 22% compared with 13% of respondents with no longstanding illness. Older people are less likely than younger ones to have access to their own car. Given that the most commonly reported conditions include rheumatism, arthritis and back problems, which can limit mobility, this group may also find it more difficult to use public transport (Walker et al, 2001).

Those with a longstanding illness were also more likely to mention 'not having anyone to go out with' (12% compared with 8%), but less likely to mention family pressures (6% compared with 11%). There was no association between longstanding illness and cost.

It has already been noted that people were more likely to want to attend more performing or non-performing arts or culture if they had already done so in the last year. Those with a longstanding illness (who were less likely to have attended in the last year) were also less likely to want to attend in the future (60% compared with 66% of those who did not have a longstanding illness). It is difficult to know whether having a limiting longstanding illness reduces interest in artistic events or activities, or whether practical difficulties or lack of energy associated with the illness, prevent people attending.

## 5.4 Participation, health and illness

### Self-reported health and participation in the arts

It was noted in Chapter 3 that there are associations between health and physical activity, social networks and creativity. Overall, and for each of the three types of participation (creative, sociable and physical), participants were more likely than non-participants to regard themselves as having very good or good health (overall, 81% compared with 69%). The differences were most significant for sociable activities (84% of participants compared with 73% of non-participants) (Table 5.6).

**Table 5.6: Percentage participating in arts activities in the last 12 months, by self-reported general health**

Health in general	Participated in at least one creative activity		Participated in at least one sociable activity		Participated in at least one dance activity		Participated in at least one of these	
	Yes %	No %	Yes %	No %	Yes %	No %	Yes %	No %
Very good	37	32	39	32	43	32	37	29
Good	43	42	45	41	43	42	44	40
Fair	16	19	13	20	12	19	15	22
Bad	4	5	3	5	2	5	3	6
Very bad	1	2	*	2	0	2	1	3
<b>Base</b>	<b>2,328</b>	<b>3,852</b>	<b>2,085</b>	<b>4,092</b>	<b>1,124</b>	<b>5,056</b>	<b>3,654</b>	<b>2,446</b>

People who participated in any of the three types of activity, or attended either performing or non-performing arts or culture, reported similar levels of health. Four-fifths (81% of participants and 80% of attenders) described their health as good or as very good. However the health profile of non-participants and non-attenders differed. Of non-participants, 9% were in bad or very bad health whereas 16% of non-attenders were in bad or very bad health. It could be inferred that the beneficial effect on health of engagement with the arts is greater from attendance than from participation. Alternatively, it could be inferred that poor self-reported general health appears to be less of a barrier to participation, which can often happen in the home, than it is to attendance.

### **Participation in the arts and longstanding illness**

In general, differences in participation were most marked between people who had a limiting longstanding illness, and others. Fewer than half (46%) of those with a limiting condition took part in any artistic or cultural activities compared with 62% of those who had a non-limiting or no longstanding illness. They were also less likely to take part in creative activities (35% compared with 38%) or in physical (dance) activities (9% compared with 21%). However, the most significant difference was that less than a quarter of those with any type of longstanding illness took part in any of the 12 sociable activities (22% compared with 37% of those who did not have a longstanding illness (Table 5.7).

**Table 5.7: Longstanding illness, by participation in arts activities in the last 12 months**

Type of activity participated in	Limiting longstanding illness %	Non-limiting longstanding illness %	No longstanding illness %	All %
Any creative activity	35	39	38	37
Any sociable activity	20	27	37	33
Any physically demanding (dance) activity	9	19	21	19
Any of these	46	59	63	59
<b>Base</b>	<b>2,675</b>	<b>1,195</b>	<b>8,325</b>	<b>12,195</b>

It should be borne in mind that clubbing (one of the sociable activities) and dance, are both most commonly reported by young people. As stated, age and other potentially important factors are taken into account in Chapters 6 and 7.

## 5.5 Access to the arts through audiovisual and online media, health and illness

### **Self-reported health and access to the arts through audiovisual and online media**

It appears that people with poor health were less likely to report attending and participating in arts events or activities. This also applied to accessing artforms through audiovisual and on-line media. Self-reported health and access to the arts through audiovisual or online media were closely associated. Over three-quarters (78%) of those who accessed any artforms in this way reported their health as very good or good, compared with 54% of those who did not access any artform in this way. Similar results were found for each of the four types of media. The differences were most pronounced for listening to CDs, mini discs, tapes or records. Four-fifths (79%) of those who listened to CDs, mini discs, tapes or records described their health as very good or good compared with 58% of others (Table 5.8).

**Table 5.8: Percentage accessing the arts through audiovisual media in the last four weeks or online in the last 12 months, by self-reported health**

Health in general	CD, mini disc, tape, record		Radio		TV, video, DVD		Internet		Any of these	
	Yes %	No %	Yes %	No %	Yes %	No %	Yes %	No %	Yes %	No %
Very good	36	20	36	25	36	30	41	32	35	19
Good	43	38	43	38	43	41	44	42	43	35
Fair	16	29	16	24	16	21	12	19	17	30
Bad	4	8	4	9	4	6	3	5	4	9
Very bad	1	5	1	4	1	2	*	2	1	7
<b>Base</b>	<b>5,223</b>	<b>958</b>	<b>1,048</b>	<b>5,133</b>	<b>4,420</b>	<b>1,759</b>	<b>1,189</b>	<b>4,991</b>	<b>5,900</b>	<b>278</b>

## Access to the arts through audiovisual and online media and longstanding illness

It might be expected that people with a limiting longstanding condition would compensate for not being able to attend arts events or activities by engaging in the arts through audiovisual or online media. Access to the arts through audiovisual media is, however, less dependent than attendance on mobility, the ability to get out of the house and access to private or public transport. The proportions of those with a limiting longstanding illness that accessed artforms through audiovisual media (but not the internet) were higher than for attendance and participation, but this was also broadly applicable to those without a longstanding illness. There were clear associations between longstanding illness and each of the four means of accessing the arts through audiovisual and online media. In line with the findings on attendance and participation, the differences were most significant between those with a limiting longstanding illness and others (Table 5.9).

**Table 5.9: Longstanding illness, by access to the arts through audiovisual media in the last four weeks or online in the last 12 months**

Medium	Limiting longstanding illness %	Non-limiting longstanding illness %	No longstanding illness %	All %
<b>Last four weeks</b>				
CD, mini disc, tape, record	74	83	89	85
Radio	72	80	86	83
TV, video, DVD	66	70	72	70
<b>Last 12 months</b>				
Internet	10	14	20	18
Any of these	92	95	97	5
<b>Base</b>	<b>2,663</b>	<b>1,193</b>	<b>8,297</b>	<b>15,153</b>

The strongest association was with listening to artforms on CDs, mini discs, tapes or records. Three-quarters (74%) of those with a limiting longstanding illness had listened to CDs compared with 88% of those with a non-limiting or no longstanding illness. The differences were significant, but less pronounced, for watching the arts on television, videos or DVDs. Fewer of those with a limiting longstanding illness watched arts programmes on TV (66% compared with 71% of other respondents).

In summary, differences in levels of engagement in the arts were more pronounced for limiting, rather than any, longstanding illness. Those with a limiting longstanding illness were less likely to have:

- attended performing or non-performing arts or culture (71% did so in comparison to 85% of those with a non-limiting condition and 90% of those with no longstanding condition)
- participated in an arts activity (46% participated in comparison to 62% of other respondents)
- access to the arts through audiovisual or online media (92% in comparison to 95% of those with a non-limiting condition and 97% of those with no longstanding condition)

These findings indicate that people with limiting longstanding conditions were prevented from higher levels of attendance by their health.

It is important to note that age may be an important intervening factor in the relationship between health and illness, and engagement in the arts. For example, although those who reported a limiting illness or disability were less likely than others to have attended any performing or non-performing arts or culture, such illnesses are more common among older people, particularly those that prevent people from going out. Age may be one reason for their lower levels of attendance. Chapters 6 and 7 explore the relationships between health, illness and the arts, taking into account age and other important factors. For example, younger people with a longstanding illness may be as likely as those of a similar age but who had no longstanding condition, to attend arts events or activities.

## 6 Engagement in the arts and longstanding illness

Chapter 5 described associations between respondents' health and ill health on the one hand, and engagement in the arts on the other, but noted that the results presented could be modified once important characteristics of respondents, notably age, were taken into consideration. Multivariable analysis allows this to be done. This chapter examines the relationship between longstanding illness and engagement in the arts, while Chapter 7 explores self-reported health and engagement with the arts. For this chapter, logistic regression analyses were carried out, as described in Appendix 3. This allows important variables, such as age, to be taken into account to see how strong the association is between engagement in the arts and illness. The strength of this association can also be compared with associations between the arts and respondents' characteristics.

Seven factors were taken into account. These were:

- age group
- education (highest educational qualification)
- socio-economic status (number of cars available to household)
- marital status (living in a couple, single or previously living in a couple)
- ethnic group (white, mixed ethnicity, Asian or British Asian, Black or British Black or Chinese and other ethnic groups)
- sex
- region (whether lived in the North, the Midlands or East Anglia, London or the South [excluding London])

To carry out multivariable analysis it is necessary to make assumptions about the sequence of events. Respondents were asked about their engagement in the arts over the last year (four weeks for access through the media). With regard to their health, they were asked about longstanding illness which 'has troubled you over a period of time or that is likely to affect you over a period of time'. It was assumed that any such reported illness preceded any engagement with the arts in the last 12 months. The analysis therefore tested whether engagement with the arts in some way depended on the presence or absence of a longstanding illness.

First, the association between all seven factors together and engagement in any arts was examined. Longstanding illness was then also included in the



analysis. The purpose was to show how much of the variation in engagement in the arts was explained by the socio-demographic variables listed above, and then to examine the contribution of longstanding illness in relation to these.

Second, in order to explore associations between longstanding illness and the different types of engagement in the arts (attendance, participation and access to the arts through audiovisual and online media), each type of engagement in turn was included in the analyses. Significant findings would indicate that the presence of a longstanding illness, or a limiting longstanding illness was associated with the type of engagement in the arts.

The types of engagement were:

- any type of engagement
- attendance at performing or non-performing arts and culture
- attendance at performing arts
- attendance at non-performing arts and culture
- participation in creative, sociable or physically demanding arts activities
- participation in creative arts activities
- participation in sociable arts activities
- participation in physically demanding arts activities (dance)
- access through any media
- listening to CDs, mini-discs or tapes
- listening to arts programmes on the radio
- watching arts programmes on TV, video or DVD
- accessing the arts on the internet

The results are summarised in Figure 6.1, and described in the following sections. The overall conclusions are summarised at the end of the chapter. Figure 6.1 shows the relative strengths of associations between each type of engagement in the arts and longstanding illness, in relation to the socio-demographic factors. For example, Column 4 (Model 3) shows that attendance at performing arts is associated with limiting longstanding illness, although not as closely as with education and number of cars. It is less closely associated with the other socio-demographic variables, and is not significantly associated with being single or of mixed ethnicity, or with living in London. Neither is attendance at performing arts associated with having a non-limiting longstanding illness.

More detailed statistical information on each model in Figure 6.1, including the odds, is provided in Tables A13 to A26 in Appendix 3.

**Figure 6.1: Associations between engagement in the arts and longstanding illness, by socio-demographic characteristics (logistic regression models) <sup>1</sup>**

Model number <sup>2</sup> / Table number in Appendix <sup>3</sup>													
0 / A13	1 / A14	2 / A15	3 / A16	4 / A17	5 / A18	6 / A19	7 / A20	8 / A21	9 / A22	10 / A23	11 / A24	12 / A25	13 / A26
<b>Dependent variable</b>													
Engage in any	Engage in any	Attend any	Attend performing	Attend non-performing	Participate in any	Participate in creative	Participate in social	Participate in dance	Access through any media	Access through CDs etc	Access through radio	Access through TV etc	Access through internet
<b>Independent variables <sup>3</sup></b>													
Socio-demographic only	Socio-demographic + LSI	Socio-demographic + LSI	Socio-demographic + LSI	Socio-demographic + LSI	Socio-demographic + LSI	Socio-demographic + LSI	Socio-demographic + LSI	Socio-demographic + LSI	Socio-demographic + LSI	Socio-demographic + LSI	Socio-demographic + LSI	Socio-demographic + LSI	Socio-demographic + LSI
Age	Age	Education	Education	Education	Education	Education	Age	Female	Age	Age	Age	Education	Age
Education	Education	Cars	Cars	Age	Age	Female	Previous	Education	Education	Asian/British Asian	Education	Age	Education
Chinese/other	Chinese/other	Age	LLSI	Cars	Previous couple	Previous couple	Asian/British Asian	LLSI	Asian/British Asian	Education	Cars	Previous couple	Female
Cars	LLSI	LLSI	Asian/British Asian	LLSI	North	North	Education	Black/British Black	Cars	Chinese/other	Chinese/other	London	Previous couple
Asian/British Asian	Asian/British Asian	North	Asian/British Asian	Asian/British Asian	Asian/British Asian	LLSI <sup>3</sup>	Single	Cars	Black/British Black	Cars	LLSI	Mixed ethnicity <sup>4</sup>	Chinese/other

Model number 2 / Table number in Appendix 3													
0 / A13	1 / A14	2 / A15	3 / A16	4 / A17	5 / A18	6 / A19	7 / A20	8 / A21	9 / A22	10 / A23	11 / A24	12 / A25	13 / A26
Female	Female	Chinese/other	East Anglia	Previous couple	Chinese/other	Non-LLS <sup>4</sup>	Chinese/other	Age	Chinese/other	Black/British Black	Female <sup>5</sup>	North <sup>4</sup>	Mixed ethnicity <sup>4</sup>
-	-	North	Black/British Black	Chinese/other	Mixed ethnicity <sup>4</sup>	Mixed ethnicity <sup>4</sup>	Mixed ethnicity <sup>4</sup>	Mixed ethnicity <sup>4</sup>	North	-	Black/British Black	Cars	Cars
-	-	Previous couple	Female	Female	Cars	-	Black/British Black <sup>4</sup>	Previous couple	Midland/East Anglia	-	-	-	Black/British Black <sup>4</sup>
-	-	Female	Age	Black/British Black	Single	-	LLSI	Black/British Black <sup>4</sup>	-	-	-	-	-
-	-	Midlands/East Anglia	Previous couple	North	LLSI	-	Female <sup>5</sup>	-	-	-	-	-	-
-	-	Black/British Black	Chinese/other	Single	-	-	North <sup>4</sup>	-	-	-	-	-	-
-	-	-	-	-	-	-	Cars	-	-	-	-	-	-
Variables not associated with engagement in arts <sup>6</sup>													
Marital status, region	Marital status, region, LSI	Single mixed ethnicity, London, non-LLSI	Single mixed ethnicity, London, non-LLSI	Single mixed ethnicity, Midlands/East Anglia, London, non-LLSI	Black/British Black, non-LLSI	Age, cars single, Asian/British Asian Black/British Chinese/other Midlands/East Anglia, London	Midlands/East Anglia, London, non-LLSI	Single, Chinese/other, region, non-LLSI	Marital status, London, female, LSI	Marital status, Mixed ethnicity, region, LSI	Marital status, Mixed ethnicity Asian/British Asian, region, non-LLSI	Single, Asian/British Black, Chinese/other, Midlands/East Anglia, female,	Single, Asian/British Asian, region, LSI

## Notes to Figure 6.1

<sup>1</sup> In each column, the order of the independent variables reflects the strength of association of each with engagement in arts, based on the odds of engagement (Exp B). Odds greater (or less) than 1 show the increase (or decrease) in odds of engaging in the activity, allowing for all the other independent variables in the column. The first variables in the columns are most strongly associated with engagement in arts.

The direction of the association is as follows, unless shown otherwise in the table, see footnotes 4 and 5.

Higher levels of engagement are associated with:

Age; younger age groups

Education; higher educational qualifications

Socio-economic status; more cars per household

Marital status; whether single, previously in a couple (compared with couple)

Sex; women (compared with men)

Lower levels of engagement are associated with:

Ethnic group; whether mixed ethnicity, Black or British Black, Chinese or other ethnic group (compared with white people)

Region; whether North, Midlands and East Anglia, London (compared with the South)

LSI; whether limiting longstanding illness, non-limiting longstanding illness (compared with no LSI)

<sup>2</sup> The odds are shown in Tables A13 to A26 in Appendix 3

<sup>3</sup> LSI = longstanding illness; LLSI = limiting longstanding illness

<sup>4</sup> Higher level of engagement compared with white people/those from the South/those with no LSI

<sup>5</sup> Lower level of engagement compared with men

<sup>6</sup> Odds not significantly different from 1

## 6.1 Characteristics of respondents and engagement in any arts activities

When all seven factors listed above were included in the analysis, it was found that age was most closely associated with engagement in the arts. Older respondents were less likely to have engaged in any artistic or cultural activity in the year preceding the interview (four weeks for access through audiovisual media). After age, and in order of association:

- people with higher educational qualifications were more likely to have engaged in the arts
- Chinese or other ethnic groups were less likely to have engaged in the arts than white respondents
- people living in households with more cars were more likely to have engaged in the arts
- Asians or British Asians were less likely to have engaged in the arts than white respondents
- women were more likely to have engaged in the arts than men

There were no differences in engagement in the arts by marital status or by the region in which respondents lived (Model 0 in Figure 6.1).

The odds of engagement in the arts, here and in subsequent sections of this chapter, are presented in Tables A13 to A26 in Appendix 3.

## 6.2 Longstanding illness and engagement in any arts activities

This pattern of engagement in the arts by the characteristics of respondents remained unchanged, when longstanding illness was also taken into account (Model 1 in Figure 6.1).

When longstanding illness was included in the analysis the odds of engagement in any artistic or cultural activity were unchanged. Taking all types of engagement together, the presence of longstanding illness, whether limiting or non-limiting, was not associated with having engaged in an artistic or cultural activity in the last 12 months (or four weeks for audiovisual media), when socio-demographic factors were taken into account (Model 1 in Figure 6.1). However this disguises significant associations between longstanding illness and individual ways of experiencing arts.

Education was the only factor that was significantly associated with any and all types of engagement in the arts. Age was significantly associated with all types of engagement except participation in creative activities.

### **6.3 Longstanding illness and attendance at performing and non-performing arts or culture in the last 12 months**

Allowing for age, highest educational qualification, socio-economic status, marital status, ethnic group, sex and region, limiting longstanding illness was closely associated with attendance at performing or non-performing arts or culture in the last year. People with a limiting longstanding illness were less likely to have attended an event or activity than those without any longstanding illness. They were also less likely to have attended any of the 10 types of performing art, or any of the seven types of non-performing art or culture, than respondents who reported no longstanding illness (Models 2 to 4 in Figure 6.1).

Of the socio-demographic factors, only education, car availability and age were more significantly associated than limiting longstanding illness with attendance at artistic or cultural events or activities. Age was less closely associated than limiting longstanding illness with attendance at performing arts.

The presence of a non-limiting longstanding illness was not associated in any way with attendance at performing or non-performing arts or culture, once the socio-demographic factors had been taken into account.

### **6.4 Longstanding illness and participation in artistic or cultural activities in the last 12 months**

The presence of a limiting longstanding illness was also closely associated with participation in artistic or cultural activities, both in general and in each of the three ways of participating, although not all in the same direction. People with a limiting longstanding illness were less likely to have participated in any activities in the last year than those who did not report a longstanding condition (Model 5 in Figure 6.1).

However, participation in any arts activities was less closely associated with the presence of a limiting longstanding illness than with all socio-demographic factors except region.

### **Longstanding illness and participation in sociable and physically demanding activities in the last 12 months**

People with a limiting longstanding illness were less likely to participate in sociable activities, and much less likely to participate in physically demanding dance activities than people who did not report any type of longstanding condition (Models 7 and 8 in Figure 6.1).

Only sex and highest educational qualification were more closely associated than limiting longstanding illness with engagement in dance activities.

The presence of a non-limiting longstanding illness was not significantly associated with participation in sociable or in dance activities, once socio-demographic factors had been taken into account.

### **Longstanding illness and participation in creative activities in the last 12 months**

However, the presence of both limiting and non-limiting conditions was associated with higher levels of participation in creative activities. People who reported having either type of longstanding condition were more likely to have engaged in a creative activity than respondents without a longstanding condition (Model 6 in Figure 6.1).

There was no difference between age groups in participation rates.

Only highest educational qualification, being female, having previously lived in a couple and living in the North were more closely associated with participation in creative activities than having a longstanding illness.

## 6.5 Longstanding illness and access to the arts through audiovisual media in the last four weeks or online in the last 12 months

Allowing for the seven socio-demographic factors, there was little association between longstanding illness and accessing artforms through any of the four audiovisual media in the last four weeks or online media in the last year. The presence of neither limiting nor non-limiting longstanding illness was associated with whether artforms were accessed through any of these media. Nor was it associated with access through CDs, mini discs or tapes, through television, videos or DVDs or through the internet (Models 9 to 13 in Figure 6.1).

However, people with a limiting longstanding illness were less likely to have listened to arts programmes on the radio in the last four weeks than those with no longstanding illness. Age, education, the number of cars available and ethnic group (whether Chinese or other ethnic group) were all more closely associated than longstanding illness, with listening to arts programmes on the radio.

## 6.6 Summary

Limiting longstanding illness was clearly associated with attendance and media access to the arts. Taking each of the various means of engagement in the arts separately, people with a limiting longstanding illness were less likely to:

- attend both performing and non-performing arts or culture
- participate in sociable or physically demanding dance activities
- listen to arts programmes on the radio

Those with any type of longstanding illness (limiting or non-limiting) were, however, more likely to participate in creative activities than people with no longstanding illness.

In comparison to socio-demographic factors, the association of limiting longstanding illness with attendance at artistic and cultural events and activities was particularly marked, most notably for attendance at performing arts.



It should be noted that age, along with the other socio-demographic variables, was taken into account in all the analyses. Age was, as expected, strongly associated with all forms of engagement in the arts, apart from participation in creative activities. Nevertheless, age was less closely associated than limiting longstanding illness with attendance at performing arts and participation in dance activities. Respondents with a limiting longstanding condition appeared to be more deterred from these two activities than from others, even allowing for age.

As stated, the only form of engagement in the arts from which older people did not appear to be deterred was doing creative activities. It was also the one form of artistic or cultural activity in which those with a longstanding condition, whether limiting or not, were more likely than other respondents to take part. Apart from listening to arts programmes on the radio, they did not appear to be deterred from accessing the arts through audiovisual or online media.

# 7 Health and engagement in the arts

Chapter 5 described associations between respondents' health and engagement in the arts, but noted that the results presented may be modified once important characteristics, notably age, are taken into consideration. Multivariable analysis allows this to be done.

This chapter investigates the relationship between self-reported general health and engagement in the arts. The findings are based on 6,490 respondents to the 2002 and 2003 surveys, who were asked about their general health. (This question was not included in the 2001 survey). Multiple regression analyses were carried out, as described in Appendix 3. This allows important variables, such as age, to be taken into account to see how strong the association is between engagement in the arts and health.

## 7.1 The analysis

As in Chapter 6, seven variables were taken into account in the multiple regression analyses:

- age group
- education (highest educational qualification)
- socio-economic status (number of cars available to household)
- marital status (living in a couple, single or previously living in a couple)
- ethnic group (white, mixed ethnicity, Asian or British Asian, Black or British Black, or of Chinese or other ethnic group)
- sex
- region (whether living in the North, the Midlands and East Anglia, London or the South excluding London)

To carry out multivariable analysis it is necessary to make assumptions about the sequence of events. Respondents were asked about their engagement in the arts over the last year (four weeks for access through the media). They were asked about the current state of their 'health in general'. It was assumed that engagement with the arts preceded people's current assessment of their health. The analysis therefore tested whether self-reported general health in some way depended on engagement with the arts.

First, the associations between all seven factors together, and self-reported general health were examined, with the purpose of showing how much variation in self-reported general health could be explained by the socio-demographic variables listed above. At this stage engagement in the arts was not explored in the analysis.

Second, in order to see whether the variations in health could be explained further, engagement in arts variables were also included. Significant findings would indicate that the respondents' health was associated with engagement in arts whether through cultural events or activities, or through media.

The types of engagement were:

- any type of engagement
- attendance at performing or non-performing arts and culture
- attendance at performing arts
- attendance at non-performing arts and culture
- participation in creative, sociable or physically demanding arts activities
- participation in creative arts activities
- participation in sociable arts activities
- participation in physically demanding arts activities (dance)
- access through any media
- listening to CDs, mini-discs or tapes
- listening to arts programmes on the radio
- watching arts programmes on TV, video or DVD
- accessing the arts on the internet

The results are summarised in Figure 7.1, and described in the following sections. The overall conclusions are summarised at the end of the chapter. Figure 7.1 shows the relative strengths of associations between each type of engagement in the arts and self-reported general health, in relation to the socio-demographic factors. For example, Column 4 (Model 3) shows that self-reported general health is associated with attendance at performing arts, but is more closely associated with age, number of cars and education. However, health is less closely associated with the other socio-demographic variables than with attendance at performing arts.

More detailed statistical information on each model in Figure 7.1, including the coefficients, is provided in Tables A28 to A42 in Appendix 3.

**Figure 7.1: Associations between self-reported general health and engagement in the arts, by socio-demographic characteristics (multiple regression models)<sup>1</sup>**

Model number <sup>2</sup> / Table number in Appendix <sup>3</sup>														
0 / A28	1 / A29	2 / A30	3 / A31	4 / A32	5 / A33	6 / A34	7 / A35	8 / A36	9 / A37	10 / A38	11 / A39	12 / A40	13 / A41	14 / A42
<b>Dependent variable: self-reported general health</b>														
Socio-demographic only	Model 0 + Engage in any	Model 0 + Attend any	Model 0 + Attend performing	Model 0 + Attend non-performing	Model 0 + Participate in any	Model 0 + Participate in creative	Model 0 + Participate in sociable	Model 0 + Participate in dance	Model 0 + Access through any media	Model 0 + Access through CDs etc	Model 0 + Access through radio	Model 0 + Access through TV etc	Model 0 + Access through internet	Model 0 + All types of engagement
<b>Independent variables</b>														
Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age	Age
Education	Education	Education	Education	Education	Education	Education	Education	Education	Education	Education	Education	Education	Education	Education
Cars	Cars	Cars	Attend any	Attend non-performing	Cars	Cars	Cars	Cars	Cars	Cars	Cars	Cars	Cars	Attend non-performing
Asian/ British Asian	Asian/ British Asian	Asian/ British Asian	Asian/ British Asian	Asian/ British Asian	Asian/ British Asian	Asian/ British Asian	Asian/ British Asian	Asian/ British Asian	Asian/ British Asian	Asian/ British Asian	Asian/ British Asian	Asian/ British Asian	Asian/ British Asian	Asian/ British Asian

<b>Model number<sup>2</sup> / Table number in Appendix<sup>3</sup></b>														
0 / A28	1 / A29	2 / A30	3 / A31	4 / A32	5 / A33	6 / A34	7 / A35	8 / A36	9 / A37	10 / A38	11 / A39	12 / A40	13 / A41	14 / A42
North	North	North	North	North	North	North	North	North	North	North	North	North	North	North
	<i>Engage in any</i>										Access through radio			<i>Participate in dance</i>
Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single
					<i>Participate in any</i>									<i>Attend performing</i>
London	London	London	London	London	London	London	London	London	London	London	London	London	London	London
Midlands/ East Anglia	Midlands/ East Anglia	Midlands/ East Anglia	Midlands/ East Anglia	Midlands/ East Anglia	Midlands/ East Anglia	Midlands/ East Anglia	Midlands/ East Anglia	Midlands/ East Anglia	Midlands/ East Anglia	Midlands/ East Anglia	Midlands/ East Anglia	Midlands/ East Anglia	Midlands/ East Anglia	Midlands/ East Anglia
									Access through any media			Access through TV etc		Access through CDs etc
<b>Independent variables not associated with self-reported general health<sup>3</sup></b>														
						Participate in creative	Participate in sociable						Access through internet	See below 4
<b>Proportion of variable in self-reported general health explained<sup>5</sup></b>														
12.9%	13.1%	13.9%	13.4%	13.8%	13.1%	12.8%	12.8%	13.3%	12.9%	13.2%	13.0%	12.9%	12.8%	14.5%

## Notes to Figure 7.1

<sup>1</sup> In each column, the order of the independent variables reflects the strength of association of each with self-reported general health, based on the value of beta, the standardised coefficient. Positive (or negative) beta coefficients show the increase (or decrease) in the standardised dependent variable (self-reported health) for a unit increase in the independent variable, allowing for all the other independent variables in the column. The highest variables in the columns are most strongly associated with self-reported general health.

In all models, the direction of the association was as follows:

Better self-reported general health was associated with:

Age; younger age groups

Education; higher educational qualifications

Socio-economic status; more cars per household

Whether engaged in arts; engaged (compared with not engaged)

Worse self-reported general health was associated with:

Marital status; whether single, previously in a couple (compared with couple)

Sex; women (compared with men)

Ethnic group; Asians/ British Asians (compared with white people)

Region; North, Midlands and East Anglia, London (compared with the South).

<sup>2</sup> The beta coefficients are shown in Tables A28 to A42 in Appendix 3

<sup>3</sup> In all models the following socio-demographic variables were not significantly associated with self-reported health when all other independent variables were taken into account: whether previously in a couple, whether of mixed ethnicity, whether Black or British Black, whether Chinese or other ethnic group, and sex

<sup>4</sup> In Model 14, the following engagement in arts variables were not significantly associated with self-reported health when all other independent variables were taken into account: participation in creative and sociable activities and access through the radio, television etc and the internet

<sup>5</sup> Adjusted R<sup>2</sup>

## 7.2 Self-reported general health and characteristics of respondents

When all the seven factors listed above were included in the analysis, it was found that, as expected, age was the variable most closely associated with self-reported health. Better health was associated with younger age groups. Following age, and in order of strength of association (here and in all the other models) were education, the number of cars available in household, whether Asian or British Asian, whether lived in the North and whether single. These were also strongly associated with health. Possession of higher qualifications and availability of a greater number of cars were both associated with better health. People who were Asian or British Asian, lived in the North or were single, were more likely to report worse health than: white people, residents of the South and people living in a couple, respectively. Less closely associated, but nevertheless statistically significant, was residence in London or in the Midlands or East Anglia. Respondents who lived in either of these regions were more likely to have worse health than those who lived in the South.

There were no differences in self-reported health by whether respondents were Black or British Black, of mixed ethnicity, or were of Chinese or other ethnic group or had previously been part of a couple (in comparison to those who were white or living in a couple, respectively). Neither was self-reported health associated with sex (Model 0 in Figure 7.1).

This pattern of association between socio-demographic factors and health was repeated in each of the analyses described in the following sections. That is, the same set of demographic factors was associated with self-reported general health, in the same order of strength of association, irrespective of whether, or which, engagement in the arts variables were included. Likewise, the remaining set of factors did not explain any variation in self-reported health (Table 7.2).

**Table 7.2: Associations between socio-demographic characteristics of respondents and self-reported general health**

Characteristics associated with self-reported general health (a)	Characteristics not associated with self-reported general health
Age group	Previously lived in a couple
Highest educational qualification	Mixed ethnicity
Number of cars	Black or British Black
Asian or British Asian	Chinese and other ethnic group
Lives in the North	Female
Single	
Lives in London (b)	
Lives in the Midlands or East Anglia (b)	

*(a) Listed in order of strength of association, in all multiple regression models of self-reported general health*

*(b) Order reversed in model 12*

### 7.3 Self-reported general health and engagement in any artistic or cultural activities in the last 12 months

A key finding was that, when all the socio-demographic variables were allowed for, engagement in the arts was significantly associated with self-reported general health.

People who had engaged in any of the artistic or cultural events or activities, had accessed the arts through the internet in the last year, or had accessed audiovisual media in the last four weeks, were more likely to report better health than those who had not been so engaged. When engagement in the arts was included in the analysis, a greater proportion of the variation in health was explained (Figure 7.1).

As in all models, age, education, number of cars, whether Asian or British Asian and whether lived in the North were the factors most strongly associated with health. After these factors, engagement in any of the arts was most strongly associated with self-reported general health. The other socio-demographic factors shown in Column 2 of Figure 7.2 were not associated with self-reported health (Model 1 in Figure 7.1).



As stated, Figure 7.1 shows the relative strengths of associations between self-reported general health and each type of engagement in the arts, in relation to the socio-demographic factors. For example, Model 2 in the third column shows that attendance at any type of art or culture is less closely associated with self-reported general health than age or education, but is more closely associated with health than the other variables shown in that column (car ownership etc).

## **7.4 Self-reported general health and attendance at performing and non-performing arts or culture in the last 12 months**

The associations between self-reported general health and attendance at artistic or cultural events and activities were strong, allowing for all socio-demographic factors. Respondents who attended at least once in the last year were more likely to report better health than those that did not attend at all. This applied to both attendance at performing arts, and to attendance at non-performing arts or culture. Of the socio-demographic factors, only age and education (and number of cars, for attendance at performing arts) were more closely associated with health (Models 2 to 4 in Figure 7.1).

### **Number of types of performing and non-performing arts or culture attended**

As described in Chapter 2, information was available on how many different types of performing art, out of the seven, and how many different types of non-performing art or culture, out of 10, were attended in the last year. People who attended more types of performing art were more likely to report better health, but the association was no stronger than with whether attended (performing arts, non-performing arts or culture or either). Similarly those who attended more types of non-performing arts or culture were also more likely to report better health, but less variation in self-reported health was explained than by whether attended non-performing arts or culture.

## **7.5 Self-reported general health and participation in arts and cultural activities in the last 12 months**

Self-reported general health was also closely associated with participation in artistic and cultural events, when all socio-demographic factors were taken into account, but the association was less strong than with attendance.

People who had participated in any artistic or cultural events in the last 12 months were more likely than other respondents to report better health. However, more variation in self-reported health was explained by each of the socio-demographic factors, with the exception of residence in London or in the Midlands or East Anglia, than by participation in artistic or cultural activities (Model 5 in Figure 7.1).

Self-reported general health was strongly associated with participation in the physically demanding activity of dance, but again, the strength of the association was less than with attendance at arts events or activities. Age, education, number of available cars and whether Asian or British Asian were all more important than participation in dance in explaining variations in self-reported health (Model 8 in Figure 7.1).

Participation in neither creative nor sociable activities was associated with self-reported health, when socio-demographic factors were taken into account (Models 6 and 7 in Figure 7.1).

## **7.6 Self-reported general health and access to the arts through audiovisual media in the last four weeks or online in the last 12 months**

Taking all means of access to the arts through audiovisual or online media together, clear associations were found with self-reported general health, when controlling for the socio-demographic factors. However, these associations were again less clear than those found for attendance. Respondents who had accessed the arts through any of these media in the last four weeks (12 months for the internet) were more likely to report better general health. The socio-demographic factors were all more important than access to artforms through media, in explaining variations in self-reported health (Model 9 in Figure 7.1).

Taking each type of medium separately, people who had listened to the arts on CDs, mini disks or tapes or on the radio were more likely to report better health. This was also, to a lesser extent, the case for those who had watched arts programmes on television, videos or DVDs. However, accessing the arts online was not associated with self-reported general health (Models 10 to 13 in Figure 7.1).

## 7.7 Self-reported general health and all types of engagement in the arts

Finally all nine forms of engagement in arts were included in the analysis together, taking into account the socio-demographic factors. It was found that access to the arts through the radio, through television, videos or DVDs and through the internet was no longer significantly associated with self-reported general health.

A key finding was that associations were still found between self-reported general health and:

- attendance at non-performing arts
- participation in dance activities
- attendance at performing arts or culture
- listening to the arts on CDs, mini discs or tapes

Respondents who engaged in any of these activities were more likely to report better health, when allowing for socio-demographic variables (Model 14 in Figure 7.1).

When the number of different types of performing and non-performing art or culture attended was substituted for whether attended performing and non-performing arts or culture, less variation in self-reported health was explained. Whether or not someone attended at all is more important than the number of attendances.

### **Attitudes towards the arts**

When all the socio-demographic factors were taken into account, it was found that self-reported general health was significantly associated with respondents' attitudes towards the arts. People who agreed more strongly that 'arts play a valuable role in my life' were more likely to report better health. However, the other factors explained a greater proportion of the variation in self-reported health. Once engagement in arts was included in the analysis, attitude towards the arts was no longer associated with health.

### **Availability of local facilities for engaging in the arts**

The availability of local resources such as theatres, museums or art galleries, concerts and exhibitions was significantly associated with self-reported general health when allowing for socio-demographic factors. People who

said that all, or almost all, of these facilities were available locally were more likely to report better health than those for whom they were less readily available.

Chapter 5 showed that facilities and activities for engaging in the arts were said by respondents to be more likely to be available in the South than in other regions. When the availability of local resources was included in the analysis, region was not retained in the model because of the close association between these two variables. It should be noted that other region level variables, such as social capital (for example crime rates, and the availability of public transport) may be more important than the availability of local arts facilities to perceptions of health.

## 7.8 Allowing for limiting longstanding illness

The sample on which these results were based included a substantial minority of respondents with limiting longstanding illness. These respondents were less likely than others to report better health. Chapter 6 showed that, as expected, and allowing for age and other factors, they were also less likely to engage in artistic or cultural activities (apart from creative activities). For example people with a limiting longstanding illness were less likely to engage in dance activities, which were found to be strongly associated with less good health. It could be argued that it is therefore not surprising to find an association between health and engagement in the arts.

In order to allow for this potential source of bias, the association between self-reported general health and engagement in arts was re-examined by looking only at people who did not have a limiting longstanding illness (that is people with a non-limiting or no longstanding illness). Taking each form of arts engagement separately, and allowing for socio-demographic factors, it was found that better health was more likely to be reported by those who:

- attended performing or non-performing arts or culture
- participated in dance
- listened to CDs, mini discs, tapes or records
- watched arts programmes on television, videos or DVDs

Only listening to the arts on the radio was no longer significantly associated with self-reported health.

When all nine forms of arts engagement, together with socio-demographic factors, were taken into account, it was found that better health was more likely to be reported by those without a limiting longstanding illness who:

- attended non-performing arts or culture
- participated in dance
- listened to the arts on CDs, mini discs, tapes or records

Watching arts programmes on TV, video or DVD, and attending performing arts were no longer significantly associated with self-reported health.

This could be because, when all nine forms of engagement are analysed together, other activities such as dance, or listening to CDs were the real reason for better self-reported health.

## 7.9 Summary

When all nine types of engagement in the arts were analysed together, taking into account socio-demographic factors, several ways of engaging in the arts were found to be associated with better perceptions of general health. These were:

- attendance at performing arts
- attendance at non-performing arts or culture
- participation in dance
- listening to the arts on CDs, mini discs, tapes or records

When each type of engagement was included separately, two forms of engagement were found to be significantly associated with self-reported general health in addition to the four already listed, when allowing for socio-demographic variables. These were:

- listening to arts programmes on the radio
- watching the arts on television, video or DVD

## 8 Conclusions

A key finding of this report is the high level of engagement in a wide range of events and activities. Only 2% of those who took part in the study had not engaged in any of the events or activities described in the report. In the four weeks prior to the interview, 95% of respondents had experienced at least one form of art through audiovisual or online media (12 months for online access). In the previous year 85% had attended performing or non-performing arts or culture and 58% had participated in the artistic activities covered by the analysis.

The majority of respondents had attended non-performing arts or culture (79%), performing arts (63%) or accessed the arts through CDs, mini discs, tapes or records (85%), through the radio (83%) or through television, videos or DVDs (70%). Individual events or activities experienced by the largest proportions of respondents were: going to see a film (60%), and listening to rock or pop music on CDs (66%) or the radio (64%).

Comparatively few engaged in activities involving the relatively new technologies that have become more available in recent years. For example, 18% accessed the arts online, 8% attended events that included video or electronic art, 8% created original artworks using computers (although the relatively high participation of respondents to the 2002 survey of Black and minority ethnic adults, 18%, was notable) and 2% made films or videos.

There are however, indications that use of the internet to access arts is increasing, even over the relatively short time covered by the three surveys. Nearly half of the youngest age group (aged 16 to 24) had accessed artforms online, which is encouraging for future use of this medium. There were higher levels of access through the internet by people of mixed ethnicity and by Black and British Black respondents. The increasingly widespread availability of computers in households, and of local college courses for learning to use them, may encourage older people to access the arts through this medium. Formal courses tend to focus on office skills such as word processing, file management and email, but the increasing availability of computers in public libraries offers another access route. Arts Council England has invested substantially in agencies and initiatives engaged in the promotion of literature and reader development throughout the public library network, which may bring more people into contact with computers.

The second key finding was that even when allowing for age, sex, education, ethnic group, socio-economic status, marital status and region, longstanding illness was clearly associated with engagement in the arts. People with a limiting longstanding illness were less likely to attend both performing and non-performing arts or culture. They were also less likely to participate in sociable or physically demanding activities or to listen to arts programmes on the radio.

The presence of a non-limiting illness, however, was not associated in any way with attendance at performing or non-performing arts or culture, or with participation in sociable or dance activities.

The findings suggest that one of the main reasons that respondents with a limiting longstanding illness were less likely to take part in artistic experiences was their health. Whether they compensated by engaging in activities that could be accommodated within their condition is unclear. On the basis of other surveys, the nature of the conditions is likely to be diverse, although the Arts Council England surveys did not collect details of the type of illness. For example, respiratory, musculo-skeletal and mental conditions would have different implications for the type of arts event or activity that could be undertaken. There are, however, indications that people with illnesses that limited their activities were less inclined as well as less able to engage in the arts. They were no more likely than others to access the arts through audiovisual and online media, although these might be seen as less taxing means of access. They were nevertheless more likely to take part in creative activities.

Respondents in general were less likely to watch arts programmes on television, videos or DVDs than to listen to the arts on CDs and the radio but people with a limiting longstanding illness were no less likely than others to watch arts programmes on the television. In April 2004 it was announced that a substantial budget is to be made available to develop the artistic and cultural content of BBC programmes, particularly on BBC2 and the radio. It is to be hoped that this initiative will result in a more enriching experience of the arts in a medium that is accessible to those with limiting longstanding illnesses, and to those who simply like watching television and listening to the radio.

The third key finding is that respondents who engaged in the arts were more likely in general to report better health. However, several other factors were

more important in explaining self-reported general health. For example, younger people and those with higher educational qualifications or more cars were more likely to report better health. Asians or British Asians, those living in the North and single people were less likely to report better health.

When these and other socio-demographic factors were taken into account, respondents who had engaged in the arts were more likely to report better general health. In particular, better health was more likely to be reported by those who attended performing and non-performing arts or culture, took part in dance activities, and accessed artforms through media such as CDs or television. (These findings are based on respondents who did not report a limiting longstanding condition, to avoid bias from the effect that this has on engagement in the arts).

A fourth finding is that patterns of engagement in the arts do not appear to be narrowly focussed. People who engaged in the arts were most likely to have used all three means of engagement (through attendance, participation and audiovisual or online media), rather than one or two only. Attenders were most likely to have attended both performing and non-performing arts or culture and access through media was most likely to have taken place through all three audiovisual formats. Participants, however, were most likely to have taken part in only one type of activity, either creative, sociable or a dance activity.

The potential expansion of arts broadcasting is likely to provide larger audiences for arts programmes on television and the radio. This and the increasing use of the internet to access artforms may cross over into other ways of experiencing the arts. The findings of this report suggest that if these include attendance at performing and non-performing arts or culture, participation in dance or access to the arts through CDs, mini discs, tapes or records or through television, videos or DVDs, then participants in these may view their health more positively. Greater contact between Arts Council England and broadcasters could result in a broader range of artforms being available through convenient media for people with a limiting longstanding illness. The joint Arts Council England and BBC English Regions Roots project (Arts Council England and BBC, 2004), which aims to produce a new and higher profile for arts and culture from African, Asian, Caribbean and Chinese roots, and which is developing community networks to test audience responses and develop new audiences, could provide a model for such initiatives.



# Appendix 1: Glossary of terms

## **Art attenders: List of events or activities**

### **Performing arts**

Carnival, street arts or circus (not animals)

Play or drama

Musical

Pop or rock

Live dance event

Cultural festival

Classical music

Opera or operetta

Jazz

Other live music event (Roots, folk, world and other unspecified types of live music)

### **Non-performing arts or culture**

Film at a cinema or other venue

Library

Museum or art gallery

Art, photography or sculpture exhibition

Craft exhibition

Event connected with books or writing

Event including video or electronic art

## **Participants: List of activities**

### **Creative activities**

Painting, drawing, print making or sculpture

Textile crafts such as embroidery, sewing, etc

Create original artworks or animation using computer

Photography as an artistic activity

Wood crafts

Other crafts such as calligraphy, pottery or jewellery making

Write any poetry

Write any stories or plays

Make any films or videos as an artistic activity

Write or compose a piece of music

### **Sociable activities**

Clubbing

Sing to an audience (or rehearse)

Play a musical instrument to an audience (or rehearse)

Sing with a choir or vocal group

Take part in another music-making group such as an orchestra, drama, theatre or dance group

Take part in drama, theatre or dance group

Perform or rehearse in a play or drama

Take part in a painting, drawing or other visual arts group

Take part in a photography or film-making group

Take part in a writers group

Perform in opera or operetta

Take part in another arts group

### **Physically demanding activities**

Ballet or other type of dance

### **Media: List of media and artforms**

#### **Media**

CDs, mini discs, tapes or records

Radio

Television, videos or DVDs

Internet

#### **Artforms**

Rock or pop

Classical music

Soul and dance music

Jazz

Poetry or book reading

Opera or operetta

World music

Play, excluding films, TV dramas and comedies

Dance

Asian radio

Black radio

Works of visual art

### **Longstanding illness**

Everyone who took part in the survey was asked the following question.

Do you have any longstanding illness or disability? By longstanding I mean anything that has troubled you over a period of time or that is likely to affect you over a period of time.

People who answered 'yes' were then asked: 'Does this limit your activities in any way?'

Those who answered 'no' to the first question were classed as having no longstanding illness. People who answered 'yes' to the first question, but 'no' to the second, were classed as having a non-limiting longstanding illness, while those who answered 'yes' to both questions were classed as having a limiting longstanding illness.

### **Region**

London: Inner London, Outer London

Midlands: West Midlands, East Midlands, East Anglia

North: North East, North West, Yorkshire and Humberside

South: South East, South West

## Appendix 2: The questionnaire

**Q1** I am now going to ask you about some things that you may have done in your leisure time or for entertainment.

I would like you to look at this card and tell me which, if any, of these things you have visited or attended in the last 12 months.

Please include things like community events but exclude any events that you have attended as part of your job, or events produced by a school or 6th form college.

CODE ALL THAT APPLY

- (1) A film at a cinema or other venue
- (2) Public library
- (3) Museum/art gallery
- (4) Stately home/castle/garden
- (5) Well-known park or gardens
- (6) Exhibition or collection of art, photography or sculpture
- (7) Craft exhibition (not crafts market)
- (8) Event including video or electronic art
- (9) Event connected with books or writing
- (10) None of these

**Q2** And from this card (which, if any, of these things have you visited or attended in the last 12 months)?

CODE ALL THAT APPLY

- (1) Carnival, street arts and circus (not animals)
- (2) Culturally specific festival
- (3) Musical
- (4) Pantomime
- (5) Play/drama
- (6) Opera/opera
- (7) Classical music concert
- (8) Jazz concert
- (9) Other live music event
- (10) Live dance event
- (11) None of these

**Ask people who have attended a music event**

Q3 What sort of music event was it?

CODE ALL THAT APPLY

- (1) Rock/pop
- (2) Folk or country and western
- (3) World music
- (4) Some other music

**Ask people who have attended a live dance performance**

Q4 What sort of dance event was it?

CODE ALL THAT APPLY

- (1) African people's dance
- (2) Ballet
- (3) Contemporary dance
- (4) Jazz/street dance
- (5) South Asian and Chinese dance
- (6) Some other dance

**Ask about events listed in Qs 1–4, excluding stately home/castle/  
garden, well-known park or gardens**

Q5 Thinking about the last 12 months, approximately how many times have you visited or attended this?

Q6 And thinking about the last four weeks, have you visited or attended this event?

- (1) Yes
- (2) No

**Ask all those who attended at least one arts event in the last 12 months**

**Q7** May I just check, what was the last event or place that you went to?  
Was it ...

CODE FIRST THAT APPLIES

- (1) The exhibition or collection of art, photography or sculpture?
- (2) The craft exhibition?
- (3) The event connected with books or writing?
- (4) The carnival?
- (5) The culturally specific festival?
- (6) The musical or pantomime?
- (7) The play or drama?
- (8) The opera or operetta?
- (9) The classical music concert?
- (10) The jazz concert?
- (11) The dance?
- (12) The event including video or electronic art?

**Q8** What were your reasons for going to the event at Q7?

CODE ALL THAT APPLY

- (1) See specific performer or event
- (2) Like going to that type of event
- (3) Special occasion/celebration
- (4) Social event
- (5) Invited to go
- (6) Recommended by a friend or relative/word of mouth
- (7) Accompanying children
- (8) Happened to be passing by
- (9) Other

**Ask all those who gave more than one reason at Q8**

**Q9** May I just check, what was your main reason for going?

CODE ONE ONLY

- (1) See specific performer or event
- (2) Like going to that type of event
- (3) Special occasion/celebration
- (4) Social event
- (5) Invited to go
- (6) Recommended by a friend or relative/word of mouth
- (7) Accompanying children
- (8) Happened to be passing by
- (9) Other

**Ask all respondents**

**Q10** Thinking about the arts and cultural events I've asked you about, if you could attend or visit them as often as you wanted, would you be interested in doing so (more than you do now)?

- (1) Yes
- (2) No

**Q11** Here is a list of things which people say prevent them from visiting or attending (more) events. Looking at this card, could you tell me which, if any, apply to you?

CODE ALL THAT APPLY

- (1) It's difficult to find time
- (2) It costs too much
- (3) Family pressures
- (4) I'm not really interested
- (5) I don't have anyone to go with
- (6) I might feel uncomfortable or out of place
- (7) My health is not good enough
- (8) Lack of transport
- (9) Other
- (10) None of these

**Q12** I would like you to look at this card and tell me which, if any, of these things you have done in the last 12 months.

Please include things like community events and festivals but exclude anything you have done as part of your job, at school or 6th form college.

CODE ALL THAT APPLY

- (1) Read for pleasure (not newspapers, magazines or comics)
- (2) Buy a novel, or book of stories, poetry or plays for yourself
- (3) Write any stories or plays
- (4) Write any poetry
- (5) Write lyrics
- (6) None of these

**Ask all those who read for pleasure**

**Q13** Can you tell me what sort of things you have read for pleasure over the last 12 months?

CODE ALL THAT APPLY

- (1) Work of fiction, play, novel or story
- (2) Poetry
- (3) Biography
- (4) Non-fiction/factual
- (5) Other

**Q14** And from this card (which, if any, of these things have you done in the last 12 months)?

**Ask all respondents**

CODE ALL THAT APPLY

- (1) Clubbing
- (2) Do ballet
- (3) Dance for fitness such as aerobics
- (4) African people's dance, South Asian or Chinese dance, jazz/street dance, other dance
- (5) Sing to an audience or rehearse for a performance (not karaoke)



- (6) Play musical instrument to an audience or rehearse for a performance
- (7) Play musical instrument for your own pleasure
- (8) Write any music
- (9) Rehearse or perform in play/drama
- (10) Rehearse or perform in opera/opera
- (11) Help with running of an arts/cultural event or arts company/organisation
- (12) None of these

**Q15** And from this card (which, if any, of these things have you done in the last 12 months)?

CODE ALL THAT APPLY

- (1) painting, drawing, printmaking or sculpture
- (2) photography to create a piece of art (not family or holiday 'snaps')
- (3) make films or videos to create a piece of art (not family or holidays)
- (4) use a computer to create original artworks or animation
- (5) textile crafts such as embroidery, crocheting, or knitting
- (6) wood crafts such as wood turning, carving, furniture making
- (7) other crafts such as calligraphy, pottery or jewellery making
- (8) buy any original works of art for yourself
- (9) buy any original/handmade crafts such as pottery or jewellery for yourself
- (10) none of these

**Ask about each activity mentioned at Qs 12–15, except 'buying art or craft', 'clubbing' and 'dance for fitness'**

**Q16** How often do you usually do [name of activity]?

- (1) At least once a week
- (2) At least once a month
- (3) Every 2 or 3 months
- (4) 2 or 3 times a year
- (5) Once a year
- (6) Less than once a year

**Ask all those who sang or played a musical instrument to an audience or played a musical instrument for pleasure**

**Q17** What type(s) of music do you sing/perform/play?

CODE ALL THAT APPLY

- (1) Classical including South Asian classical music
- (2) Choral
- (3) Jazz
- (4) Rock/pop
- (5) World music
- (6) Other

**Ask all**

**Q18** Now I'm going to ask you a couple of questions about participating in arts-related activities through classes or membership of clubs and groups.

Have you taken any classes or lessons during the last 12 months in any of the subjects on this card?

Please include private tuition but exclude anything you have done as part of your job, at school or 6th form college or as part of a higher education (degree) course.

CODE ALL THAT APPLY

- (1) Music, singing or playing an instrument
- (2) Drama or dance
- (3) Creative writing
- (4) Photography or film-making
- (5) Painting, drawing or other visual art (not arts appreciation)
- (6) Craft
- (7) Other arts classes or lessons not mentioned above
- (8) None of these

**Q19** In the last 12 months have you actively taken part in any of the following?

CODE ALL THAT APPLY

- (1) Choir or vocal group
- (2) Other music-making group
- (3) Drama, theatre or dance group
- (4) Writers group
- (5) Photography or film-making group
- (6) Painting, drawing, or other visual arts group  
(not arts appreciation)
- (7) Other arts group
- (8) None of these

**Q20** I'm now going to ask you a few questions about watching and listening to arts events through television, radio and recordings such as compact disc or video.

Looking at this card, which, if any, have you listened to on compact disc, mini disc, tape or record during the last four weeks?

CODE ALL THAT APPLY

- (1) Rock/pop
- (2) Classical music
- (3) Opera/operetta
- (4) Jazz
- (5) World music
- (6) Soul and dance music
- (7) Poetry/book reading or performance
- (8) A play
- (9) None of these

**Q21** Looking at this card, which, if any, have you listened to on the radio during the last four weeks?

CODE ALL THAT APPLY

- (1) Rock/pop
- (2) Classical music
- (3) Opera/operetta
- (4) Jazz

- (5) World music
- (6) Soul and dance music
- (7) Poetry/book reading or performance
- (8) A play
- (9) Asian radio stations
- (10) Black radio stations
- (11) None of these

**Q22** Looking at this card, which, if any, have you watched on television, video or DVD during the last four weeks?

CODE ALL THAT APPLY

- (1) Rock/pop
- (2) Classical music
- (3) Opera/operetta
- (4) Jazz
- (5) World music
- (6) Soul and dance music
- (7) Poetry/book reading or performance
- (8) A play
- (9) Dance
- (10) None of these

**Q23** During the last 12 months have you used the internet to look at, watch, or listen to any of the things on this card?

CODE ALL THAT APPLY

- (1) Works of visual art
- (2) Rock/pop
- (3) Classical music
- (4) Opera/operetta
- (5) Jazz
- (6) World music
- (7) Soul and dance music
- (8) Poetry/book reading or performance
- (9) A play
- (10) Dance
- (11) None of these

**Q24** During the last 12 months have you used the internet to find out about or order tickets for art exhibitions or live performances of music, (not pop/rock) opera/opera, book/poetry readings, plays or dance?

- (1) Yes
- (2) No

**Q25** I would now like to ask you about your opinions about different aspects of the arts and culture.

Looking at this card, which of the statements best describes the availability of facilities and activities such as theatres, museums, concerts and exhibitions to people living in your local area?

- (1) Almost all of these activities/facilities are available locally
- (2) Some of these activities/facilities are available locally
- (3) These activities/facilities are not available locally but I can get to them fairly easily
- (4) These activities/facilities are not within easy reach
- (5) None of the above (SPONTANEOUS ONLY)

**Q26** Do you think the amount of public money spent on arts and cultural events and activities that are within your area is too high, about right or too low?

- (1) Much too high
- (2) Too high
- (3) About right
- (4) Too low
- (5) Much too low
- (6) Don't know

**Q27** Now thinking about the country as a whole, do you think the amount of public money spent on arts and cultural events and activities in this country as a whole is too high, about right or too low?

- (1) Much too high
- (2) Too high
- (3) About right
- (4) Too low
- (5) Much too low
- (6) Don't know

**Q28** I'm going to read out some things people have said about arts and culture and I would like you to tell me how strongly you agree or disagree with each statement, choosing your answer from this card.

I believe it is right that there should be public funding of arts and cultural projects.

- (1) Strongly agree
- (2) Agree
- (3) Neither agree nor disagree
- (4) Disagree
- (5) Strongly disagree
- (6) Don't know

**Q29** I would feel out of place in an art gallery, museum or theatre.

- (1) Strongly agree
- (2) Agree
- (3) Neither agree nor disagree
- (4) Disagree
- (5) Strongly disagree
- (6) Don't know

**Q30** All schoolchildren should have the opportunity to learn to play a musical instrument or participate in other arts activities.

- (1) Strongly agree
- (2) Agree
- (3) Neither agree nor disagree
- (4) Disagree
- (5) Strongly disagree
- (6) Don't know

**Q31** Arts from different cultures contribute a lot to this country.

- (1) Strongly agree
- (2) Agree
- (3) Neither agree nor disagree
- (4) Disagree
- (5) Strongly disagree
- (6) Don't know

**Q32** The arts play a valuable role in my life.

- (1) Strongly agree
- (2) Agree
- (3) Neither agree nor disagree
- (4) Disagree
- (5) Strongly disagree
- (6) Don't know

**Q33** If my area lost its arts and cultural activities, the people living here would lose something of value.

- (1) Strongly agree
- (2) Agree
- (3) Neither agree nor disagree
- (4) Disagree
- (5) Strongly disagree
- (6) Don't know

**Q34** The arts play a valuable role in the life of the country.

- (1) Strongly agree
- (2) Agree
- (3) Neither agree nor disagree
- (4) Disagree
- (5) Strongly disagree
- (6) Don't know

**Q35** Libraries provide a valuable service to their local community.

- (1) Strongly agree
- (2) Agree
- (3) Neither agree nor disagree
- (4) Disagree
- (5) Strongly disagree
- (6) Don't know

**Q36** How is your health in general? Would you say it is ...

- (1) Very good
- (2) Good
- (3) Fair
- (4) Bad
- (5) Very bad?

**Q37** Do you have any longstanding illness or disability? By longstanding I mean anything that has troubled you over a period of time or that is likely to affect you over a period of time.

- (1) Yes
- (2) No

**Ask all those who report a longstanding illness**

**Q38** Does this limit your activities in any way?

- (1) Yes
- (2) No



# Appendix 3: Technical appendix

## A.3.1 Characteristics of the sample

In total, 12,262 respondents were interviewed in England, although not all interviewees answered all the Arts Council England questions. The bases included in the report tables show the number of people who answered those particular questions.

Survey samples are subject to non-response bias, and it is therefore interesting to compare the distribution of the sample with that of the population as a whole. Population estimates are included in Appendix 2 of Arts in England: attendance, participation and attitudes in 2001 (Skelton et al, 2002).

Of the 12,262 people taking part in the survey, 5,577 (45.5%) were male and 6,686 (54.5%) female. The tables in this report use 10-year age groups; the distribution of the sample between these age groups is shown in Table A1. There were no significant differences between the proportion of men and women in different age groups.

**Table A1: Distribution of the sample by age and sex**

Age	Men		Women	
	% (a)	Number	% (a)	Number
16–24	15	809	14	952
25–34	16	922	18	1,201
35–44	19	1,084	19	1,284
45–54	17	961	17	1,130
55–64	14	764	13	883
65–74	11	613	11	705
75 or over	8	424	8	531
<b>All</b>	<b>100</b>	<b>5,325</b>	<b>100</b>	<b>6,937</b>

(a) Weighted to take account of probability of selection

Distributions of the sample by Government Office Region and sex are given in Table A2 and by socio-economic status and sex in Table A3.

**Table A2: Distribution of the sample by Government Office Region and sex**

Age	Men		Women	
	% (a)	Number	% (a)	Number
The North	28	1,572	28	1,844
East Anglia and the Midlands	30	1,673	30	1,993
London	17	928	17	1,152
The South (excluding London)	25	1,404	25	1,697
<b>All</b>	<b>100</b>	<b>5,325</b>	<b>100</b>	<b>6,937</b>

Respondents' occupational details were used to assign them to a social group in the National Statistics Socio-Economic Classification (NS-SEC). The classification is explained in detail on the National Statistics website at [www.statistics.gov.uk/methods\\_quality/ns\\_sec](http://www.statistics.gov.uk/methods_quality/ns_sec). The distribution of the sample is shown in Table A3.

There were significant gender differences in all socio-economic groups; men were more likely than women to be classified to the managerial and professional group, as small employers and own account workers, or into the lower supervisory and technical group. A higher proportion of women than of men were categorised to intermediate occupations, to the semi-routine and routine group or to have never worked or be long-term unemployed.

**Table A3: Distribution of the sample by socio-economic status and sex**

Age	Men		Women	
	% (a)	Number	% (a)	Number
Managerial and professional	38	2,137	28	1,895
Intermediate	6	315	19	1,267
Small employers and own account workers	10	564	4	290
Lower supervisory and technical	14	762	6	369
Semi-routine and routine	24	1,364	32	2,140
Never worked, long-term unemployed	8	435	11	726
<b>All</b>	<b>100</b>	<b>5,325</b>	<b>100</b>	<b>6,937</b>

(a) Weighted to take account of probability of selection

### A.3.2 Multivariable analysis

This part of the Appendix is technical. It provides more detailed statistical information on the models used in the logistic regression and multiple regression analyses for Chapters 6 and 7, and may not therefore be of interest to all readers.

In Chapter 5 associations between the health and illness of respondents, and the extent to which they engaged in arts were examined in the context of their personal characteristics. It is possible that intervening variables, such as age, may explain associations found between health or illness and engagement in the arts. For example, it was found that older people are more likely to report a limiting longstanding illness and that those with such an illness are less likely to attend artistic events or activities. This may explain the association found between engagement in the arts and health.

This appendix gives further details of multivariable analyses that were carried out to assess the extent of associations between health or illness and engagement with the arts, allowing for the effect of potentially important intervening variables such as age. Models 0 to 13 in Chapter 6 and Models 0 to 14 in Chapter 7 are included.

It was necessary to make assumptions about the direction of the associations, in order to specify for each model, the independent variables (IVs) and dependent variable (DV). It is not possible to hypothesise with any certainty, in the context of this study, on the direction of any associations found between engagement in the arts and self-reported health and longstanding illness, but two tentative assumptions were made.

First, respondents with a longstanding illness were likely to be aware of their condition before the timescale of the survey questions. This provides some justification for treating the presence of longstanding illness as an independent variable, and each of the engagement in arts variables in turn as the dependent variable in logistic regression models. Associations between longstanding illness and engagement in the arts are therefore tentatively interpreted in terms of the bearing that the presence of a longstanding illness can have on ability or inclination to engage in the arts.

Second, self-reported general health was taken to refer to the present (respondents were asked 'How is your health in general?'). Items on engagement in the arts concerned the last 12 months prior to the interview

(attendance, participation and online access to the arts), or the last four weeks (other audiovisual access). This provides grounds for treating arts engagement variables as independent variables, and self-reported health as the dependent variable, in multiple regression models. Associations between engagement with the arts and self-reported health are implicitly interpreted in terms of the bearing that engagement with the arts can have on self-reporting of health.

### A.3.3 Independent socio-demographic variables taken into account

#### Reference categories and dummy variables

In regression procedures, each category of certain types of variable is compared with a reference category. For example, it may be shown that higher levels of engagement in the arts are associated with being single, in comparison to being part of a couple. The reference category is 'being part of a couple'. All other categories, for example 'being single' and 'previously being part of a couple', can be compared with the reference category. They are each treated as a 'dummy variable' in the regression procedure.

For other types of variables that are not categorical, such as age, comparisons are made between consecutive values, for example between one age group and the next.

The following independent variables were controlled (that is, taken into account) in logistic regression and multiple regression analyses: age, education, socio-economic status, marital status, ethnic group, sex and broad groups of Government Office Region (Tables A4 to A10).

**Table A4: Distribution of the sample by age**

Age group ('age group')	%	Number
16–24	14	1,761
25–34	17	2,123
35–44	19	2,368
45–54	17	2,090
55–64	14	1,647
65–74	11	1,318
75 or over	8	955
<b>Base</b>	<b>100</b>	<b>12,262</b>

**Table A5: Distribution of the sample by education**

Highest educational qualification ('highed')	%	Number
Degree or higher degree	17	2,069
Higher qualification below degree	8	961
'A' levels or highers	9	1,134
ONC/ BTEC	4	534
'O' level or GCSE equivalent	21	2,512
GCSE grade D–G or equivalent	6	731
Other qualifications	7	794
No formal qualifications	29	3,521
<b>Base</b>	<b>100</b>	<b>12,248</b>

**Table A6: Distribution of the sample by socio-economic status**

Number of cars available to household ('car')	%	Number
None	19	2,382
One	44	5,335
Two	29	3,491
Three or more	8	1,153
<b>Base</b>	<b>100</b>	<b>12,261</b>

**Table A7: Distribution of the sample by marital status**

Marital status	%	Number
Couple (a)	64	7,820
Single ('single')	22	2,660
Previous couple ('prevcoup')	14	1,783
<b>Base</b>	<b>100</b>	<b>12,262</b>

(a) Reference category

**Table A8: Distribution of the sample by ethnic group**

<b>Ethnic group</b>	<b>%</b>	<b>Number</b>
White (a)	80	9,664
Mixed ethnicity ('mixed')	2	261
Asian or British Asian ('asian')	10	1,258
Black or British Black ('black')	6	686
Chinese or other ethnic group ('chinoth')	2	281
<b>Base</b>	<b>100</b>	<b>12,156</b>

(a) Reference category

**Table A9: Distribution of the sample by sex**

<b>Sex</b>	<b>%</b>	<b>Number</b>
Male (a)	45	5,577
Female ('female')	55	6,686
<b>Base</b>	<b>100</b>	<b>12,262</b>

(a) Reference category

**Table A10: Distribution of the sample by region**

<b>Broad Government Office Region</b>	<b>%</b>	<b>Number</b>
The North ('north')	28	3,416
Midlands or East Anglia ('midlands')	30	3,667
London ('london')	17	2,080
The South (excluding London) (a)	25	3,100
<b>Base</b>	<b>100</b>	<b>12,262</b>

(a) Reference category

### A.3.4 Engagement in arts variables

Each dependent variable, in logistic regression models of engagement in arts is shown in Table A11. For multiple regression models of self-reported general health, each of the variables in turn shown in Table A4 to Table A10, is controlled (taken into account) as an independent variable.

**Table A11: Percentage of respondents engaging in arts, and model numbers**

Form of engagement <sup>1</sup>	Percentage engaged in last 12 months <sup>2</sup>	Logistic regression: Model number <sup>3</sup>	Multiple regression: Model number <sup>4</sup>
Engagement variable not included in model	-	-	0
Any ('engagany')	98	0, 1	1
Attends:			
any events or activities ('attend')	85	2	2
performing arts ('attlive')	63	3	3
non-performing arts ('attnoliv')	79	4	4
Participates:			
any activities ('partany')	58	5	5
creative ('partcrea')	37	6	6
sociable ('partsoci')	33	7	7
dance ('partphys')	19	8	8
Accesses media:			
any ('mediaany')	95	9	9
CDs etc ('medlisnr')	85	10	10
radio ('medlisra')	83	11	11
TV etc ('medtvvet')	70	12	12
Internet ('medintnt')	18	13	13

<sup>1</sup>These variables are dependent in logistic regression models, and independent in multiple regression models

<sup>2</sup>Last four weeks for audiovisual media (CDs etc, radio, and TV etc)

<sup>3</sup>Models 0 to 13 in Chapter 6 are shown in Tables A13 to A26

<sup>4</sup>Models 0 to 14 in Chapter 7 are shown in Tables A28 to A42

### **‘Enter’ and ‘stepwise’ methods of including independent variables**

In the ‘enter’ method, all the independent variables specified are entered at the same time and retained in the model, whether significant or not.

In the ‘stepwise’ method, the variables specified are entered one at a time, and then retained in the model if the presence of that variable in the model provides a better explanation of the variation in the dependent variable.

Further explanation of these terms can be found in statistics textbooks (see Kinnear and Gray, 2000).

### **A.3.5 Engagement in the arts, by longstanding illness: logistic regression**

#### **Dependent and independent variables**

The dependent variable in each model is a form of engagement in the arts, for example ‘attending performing arts’ (see Table A11). The independent variables controlled in the logistic regression analyses were socio-demographic variables (see Tables A4 to A10) and longstanding illness (see Table 12). Statistical information on each model is given in Tables A13 to A26.

**Table A12: Distribution of the sample by longstanding illness**

<b>Longstanding illness (‘longill’)</b>	<b>%</b>	<b>Number</b>
Limiting longstanding illness (‘longill1’)	19	2,347
Non-limiting longstanding illness (‘longill2’)	10	1,184
No longstanding illness (a)	71	8,684
<b>Base</b>	<b>100</b>	<b>12,212</b>

(a) Reference category



The dummy variables (see section A1) shown in Tables A13 to A26 are:

- Marital status: defactre1=single; defactre2=previous couple (reference category: couple)
- Ethnic group: ethgroup1=mixed ethnicity; ethgroup2=Asian/British Asian; ethgroup3=Black/British Black; ethgroup4=Chinese or other ethnic group (reference category: white)
- Region: regionb1=North; regionb2=Midlands or East Anglia; regionb3=London (reference category: the South excluding London)
- Sex: respsex1=female (reference category: male)
- Longstanding illness: longill1=limiting longstanding illness; longill2=non-limiting longstanding illness (reference category: no longstanding illness)

### **Logistic regression SPSS output: tables of variables in the equation**

The odds of engagement (Exp [B]) reflect the strength of association of each independent variable with engagement in arts. Odds greater (or less than) one show the increase (or decrease) in odds of engaging in the activity, allowing for all other independent variables. The highest and lowest odds reflect the strongest associations with engagement in arts.

More detailed explanations of terms such as 'odds' can be found in statistics textbooks (see Kirkwood, 1988).

For each model, first the socio-demographic IVs were entered ('enter' method) and then longstanding illness ('stepwise' method).

**Table A13: Whether engaged in any arts, with socio-demographic variables controlled**

Model	Variable	Wald	df	Sig	Exp(B)
0	agegroup	70.64	1	.000	0.62
	highed	56.64	1	.000	0.65
	car	36.42	1	.000	2.02
	defactre	2.06	2	.357	
	defactre1	1.58	1	.209	0.81
	defactre2	0.18	1	.672	1.13
	ethgroup	57.90	4	.000	
	ethgroup1	3.42	1	.065	0.35
	ethgroup2	32.20	1	.000	0.26
	ethgroup3	1.18	1	.277	0.66
	ethgroup4	38.31	1	.000	0.11
	regionb	2.60	3	.458	
	regionb1	2.47	1	.116	0.73
	regionb2	0.71	1	.401	0.84
	regionb3	0.28	1	.598	0.87
	respsex1	5.22	1	.022	1.40

*Dependent variable: engagany*

Note: The Wald chi-squared test is used to determine the importance of individual coefficients (Katz, 1999). The coefficients, ie the 'B's, (not shown in the tables) are the log odds. So the 'Exp(B)'s (ie e to power B) shown are the odds. For example in Table A13,  $B = -0.473$ ;  $\text{odds} = \text{Exp}(B) = e \text{ to power } -0.473 = 0.62$ . This is the most significant result as Wald is highest. The least significant is defactre2 (previous couple compared with current couple).

**Table A14: Whether engaged in any arts, with socio-demographic variables and longstanding illness controlled**

Model	Variable	Wald	df	Sig	Exp(B)
1	agegroup	70.64	1	.000	0.62
	highed	56.64	1	.000	0.64
	car	36.42	1	.000	2.02
	defactre	2.06	2	.357	
	defactre1	1.58	1	.209	0.81
	defactre2	0.18	1	.672	1.13
	ethgroup	57.90	4	.000	
	ethgroup1	3.42	1	.065	0.35
	ethgroup2	32.20	1	.000	0.26
	ethgroup3	1.18	1	.277	0.66
	ethgroup4	38.31	1	.000	0.11
	regionb	2.60	3	.458	
	regionb1	2.47	1	.116	0.73
	regionb2	0.71	1	.401	0.84
	regionb3	0.28	1	.598	0.88
	respsex1	5.22	1	.022	1.40

*Dependent variable: engagany*

*Variable excluded: longill*

**Table A15: Whether attended any performing or non-performing arts or culture, with socio-demographic variables and longstanding illness controlled**

Model	Variable	Wald	df	Sig	Exp(B)
2	agegroup	76.70	1	.000	0.84
	highed	489.17	1	.000	0.71
	car	107.44	1	.000	1.53
	defactre	10.95	2	.004	
	defactre1	.07	1	.793	1.02
	defactre2	10.86	1	.001	1.38
	ethgroup	53.30	4	.000	
	ethgroup1	.73	1	.392	1.25
	ethgroup2	34.76	1	.000	0.55
	ethgroup3	6.94	1	.008	0.69
	ethgroup4	21.65	1	.000	0.41
	regionb	21.45	3	.000	
	regionb1	18.50	1	.000	0.71
	regionb2	7.36	1	.007	0.80
	regionb3	.39	1	.533	0.94
	respsex1	8.39	1	.004	1.19
	longill	60.93	2	.000	
	longill1	59.90	1	.000	0.60
	longill2	1.34	1	.246	0.90

*Dependent variable: attend*

**Table A16: Whether attended any performing arts, with socio-demographic variables and longstanding illness controlled**

Model	Variable	Wald	df	Sig	Exp(B)
3	agegroup	8.44	1	.004	0.96
	highed	530.48	1	.000	0.82
	car	100.92	1	.000	1.31
	defactre	6.97	2	.031	
	defactre1	0.46	1	.498	1.04
	defactre2	6.87	1	.009	1.17
	ethgroup	62.22	4	.000	
	ethgroup1	3.70	1	.054	1.34
	ethgroup2	49.45	1	.000	0.61
	ethgroup3	11.20	1	.001	0.73
	ethgroup4	5.10	1	.024	0.74
	regionb	47.70	3	.000	
	regionb1	42.19	1	.000	0.70
	regionb2	21.44	1	.000	0.77
	regionb3	2.38	1	.123	0.90
	respsex1	8.88	1	.003	1.13
	longill	66.57	2	.000	
	longill1	65.24	1	.000	0.65
	longill2	0.34	1	.559	0.96

*Dependent variable: attlive*

**Table A17: Whether attended any non-performing arts or culture, with socio-demographic variables and longstanding illness controlled**

Model	Variable	Wald	df	Sig	Exp(B)
4	agegroup	99.24	1	.000	0.84
	highed	672.63	1	.000	0.72
	car	87.59	1	.000	1.38
	defactre	25.44	2	.000	
	defactre1	0.24	1	.623	1.04
	defactre2	25.35	1	.000	1.52
	ethgroup	45.77	4	.000	
	ethgroup1	0.33	1	.566	1.13
	ethgroup2	25.52	1	.000	0.63
	ethgroup3	11.90	1	.001	0.66
	ethgroup4	19.00	1	.000	0.47
	regionb	14.14	3	.003	
	regionb1	8.28	1	.004	0.82
	regionb2	1.94	1	.164	0.91
	regionb3	0.75	1	.385	1.08
	respsex1	15.08	1	.000	1.22
	longill	54.72	2	.000	
	longill1	54.62	1	.000	0.64
	longill2	2.46	1	.117	0.88

*Dependent variable: attnoliv*

**Table A18: Whether participated in any activities, with socio-demographic variables and longstanding illness controlled**

Model	Variable	Wald	df	Sig	Exp(B)
5	agegroup	232.03	1	.000	0.80
	highed	251.64	1	.000	0.87
	car	14.00	1	.000	1.10
	defactre	178.92	2	.000	
	defactre1	6.83	1	.009	1.17
	defactre2	178.13	1	.000	2.31
	ethgroup	117.03	4	.000	
	ethgroup1	17.83	1	.000	2.02
	ethgroup2	72.31	1	.000	0.55
	ethgroup3	0.33	1	.565	1.06
	ethgroup4	23.02	1	.000	0.52
	regionb	3.79	3	.285	
	regionb1	0.00	1	.969	1.00
	regionb2	0.75	1	.388	1.05
	regionb3	1.35	1	.245	0.92
	respsex1	146.21	1	.000	1.64
	longill	9.84	2	.007	
	longill1	6.25	1	.012	0.87
	longill2	1.77	1	.183	1.10

*Dependent variable: partany*

**Table A19: Whether participated in any creative, with socio-demographic variables and longstanding illness controlled**

Model	Variable	Wald	df	Sig	Exp(B)
6	agegroup	1.98	1	.160	0.98
	highed	258.80	1	.000	0.88
	car	3.66	1	.056	1.05
	defactre	40.05	2	.000	
	defactre1	0.27	1	.604	1.03
	defactre2	39.96	1	.000	1.41
	ethgroup	13.11	4	.011	
	ethgroup1	8.85	1	.003	1.47
	ethgroup2	0.31	1	.576	0.96
	ethgroup3	2.98	1	.084	0.86
	ethgroup4	0.23	1	.633	0.94
	regionb	31.64	3	.000	
	regionb1	23.40	1	.000	0.77
	regionb2	0.01	1	.924	1.00
	regionb3	2.20	1	.138	0.91
	respsex1	142.25	1	.000	1.60
	longill	17.62	2	.000	
	longill1	11.46	1	.001	1.20
	longill2	9.74	1	.002	1.23

*Dependent variable: partcrea*



**Table A20: Whether participated in any sociable activities, with socio-demographic variables and longstanding illness controlled**

Model	Variable	Wald	df	Sig	Exp(B)
7	agegroup	737.76	1	.000	0.62
	highed	123.29	1	.000	0.90
	car	4.79	1	.029	1.06
	defactre	322.69	2	.000	
	defactre1	60.51	1	.000	1.76
	defactre2	297.83	1	.000	2.78
	ethgroup	266.66	4	.000	
	ethgroup1	12.87	1	.000	1.67
	ethgroup2	194.04	1	.000	0.32
	ethgroup3	10.86	1	.001	1.37
	ethgroup4	26.75	1	.000	0.47
	regionb	8.41	3	.038	
	regionb1	5.71	1	.017	1.16
	regionb2	0.08	1	.785	1.02
	regionb3	0.05	1	.828	0.98
	respsex1	8.23	1	.004	0.88
	longill	9.45	2	.009	
	longill1	8.84	1	.003	0.82
	longill2	1.54	1	.215	0.91

*Dependent variable: partsoci*

**Table A21: Whether participated in any dance activities, with socio-demographic variables and longstanding illness controlled**

Model	Variable	Wald	df	Sig	Exp(B)
8	agegroup	24.82	1	.000	0.91
	highed	75.48	1	.000	0.91
	car	27.04	1	.000	1.17
	defactre	11.40	2	.003	
	defactre1	3.25	1	.072	0.86
	defactre2	6.74	1	.009	1.19
	ethgroup	74.49	4	.000	
	ethgroup1	12.18	1	.000	1.69
	ethgroup2	4.60	1	.032	0.83
	ethgroup3	47.70	1	.000	1.98
	ethgroup4	1.65	1	.199	0.81
	regionb	3.80	3	.284	
	regionb1	0.07	1	.787	1.12
	regionb2	0.20	1	.654	1.03
	regionb3	3.35	1	.067	1.16
	respsex1	488.91	1	.000	3.34
	longill	52.11	2	.000	
	longill1	49.98	1	.000	0.56
	longill2	0.11	1	.745	1.03

*Dependent variable: partphys*

**Table A22: Whether accessed arts through any media, with socio-demographic variables and longstanding illness controlled**

Model	Variable	Wald	df	Sig	Exp(B)
9	agegroup	160.77	1	.000	0.65
	highed	78.11	1	.000	0.81
	car	33.42	1	.000	1.49
	defactre	.42	2	.812	
	defactre1	.04	1	.845	1.02
	defactre2	.41	1	.522	1.12
	ethgroup	76.34	4	.000	
	ethgroup1	2.06	1	.152	0.58
	ethgroup2	59.23	1	.000	0.31
	ethgroup3	24.68	1	.000	0.37
	ethgroup4	20.41	1	.000	0.28
	regionb	7.18	3	.066	
	regionb1	6.70	1	.010	0.71
	regionb2	4.59	1	.032	0.75
	regionb3	2.62	1	.105	0.77
	respsex1	2.74	1	.098	1.17

*Dependent variable: mediaany*

*Excluded variable: longill*

**Table A23: Whether accessed arts through CDs etc, with socio-demographic variables and longstanding illness controlled**

Model	Variable	Wald	df	Sig	Exp(B)
10	agegroup	660.50	1	.000	0.58
	highed	186.51	1	.000	0.84
	car	35.45	1	.000	1.27
	defactre	3.10	2	.213	
	defactre1	0.48	1	.490	0.95
	defactre2	2.94	1	.087	0.85
	ethgroup	313.18	4	.000	
	ethgroup1	3.61	1	.057	0.65
	ethgroup2	293.93	1	.000	0.20
	ethgroup3	30.86	1	.000	0.47
	ethgroup4	56.27	1	.000	0.26
	regionb	4.93	3	.177	
	regionb1	1.63	1	.202	1.11
	regionb2	0.13	1	.715	0.97
	regionb3	1.72	1	.190	1.14
	respsex1	0.85	1	.356	0.95

*Dependent variable: medlisnr*

*Excluded variable: longill*

**Table A24: Whether accessed arts through the radio, with socio-demographic variables and longstanding illness controlled**

Model	Variable	Wald	df	Sig	Exp(B)
11	agegroup	296.06	1	.000	0.73
	highed	110.00	1	.000	0.89
	car	68.44	1	.000	1.35
	defactre	0.12	2	.943	
	defactre1	0.07	1	.794	0.98
	defactre2	0.07	1	.793	0.98
	ethgroup	43.41	4	.000	
	ethgroup1	0.44	1	.509	0.88
	ethgroup2	2.66	1	.103	0.85
	ethgroup3	6.14	1	.013	0.74
	ethgroup4	40.42	1	.000	0.37
	regionb	3.99	3	.263	
	regionb1	1.66	1	.198	0.91
	regionb2	0.01	1	.911	1.01
	regionb3	0.50	1	.480	1.07
	respsex1	8.92	1	.003	0.85
	longill	11.41	2	.003	
	longill1	11.40	1	.001	0.81
	longill2	0.60	1	.440	0.94

*Dependent variable: medlisra*

**Table A25: Whether accessed arts through television etc, with socio-demographic variables and longstanding illness controlled**

Model	Variable	Wald	df	Sig	Exp(B)
12	agegroup	36.06	1	.000	0.92
	highed	55.04	1	.000	0.94
	car	3.97	1	.046	1.05
	defactre	7.90	2	.019	
	defactre1	3.45	1	.063	1.12
	defactre2	5.40	1	.020	1.15
	ethgroup	9.80	4	.044	
	ethgroup1	4.45	1	.035	1.39
	ethgroup2	2.75	1	.098	0.89
	ethgroup3	1.32	1	.250	1.12
	ethgroup4	.10	1	.749	0.96
	regionb	16.67	3	.001	
	regionb1	4.25	1	.039	1.12
	regionb2	.01	1	.928	1.00
	regionb3	5.10	1	.024	0.86
	respsex1	3.62	1	.057	1.08

*Dependent variable: medtvvet*

*Excluded variable: longill*

**Table A26: Whether accessed arts through the internet, with socio-demographic variables and longstanding illness controlled**

Model	Variable	Wald	df	Sig	Exp(B)
13	agegroup	525.516	1	.000	0.58
	highed	212.00	1	.000	0.85
	car	7.91	1	.005	1.09
	defactre	44.53	2	.000	
	defactre1	2.00	1	.157	1.16
	defactre2	44.30	1	.000	1.56
	ethgroup	29.75	4	.000	
	ethgroup1	10.78	1	.001	1.62
	ethgroup2	3.58	1	.058	1.17
	ethgroup3	4.25	1	.039	1.25
	ethgroup4	18.28	1	.000	1.86
	regionb	1.31	3	.728	
	regionb1	1.16	1	.282	0.92
	regionb2	0.09	1	.771	0.98
	regionb3	0.07	1	.794	0.98
	respsex1	149.90	1	0.00	0.52

*Dependent variable: medintnt*

*Excluded variable: longill*

### A.3.6 Self-reported general health, by engagement in the arts: multiple regression

#### Dependent and independent variables

The dependent variable in each model is self-reported general health (see Table A27). The independent variables controlled in the multiple regression analyses were socio-demographic variables (see Tables A4 to A10) and each form of engagement in arts in turn (see Table A11). Statistical information on each model is given in Tables A28 to A42.

**Table A27: Distribution of the sample by self-reported general health**

Self-reported general health ('healthgn')	%	Number
Very good	34	2,100
Good	43	2,636
Fair	18	1,090
Bad	4	272
Very bad	1	93
<b>Base (a)</b>	<b>100</b>	<b>6,191</b>

(a) Respondents to the 2001 study were not asked this question

For each model, first the socio-demographic IVs were entered ('enter' method) and then longstanding illness and each arts engagement variable in turn ('stepwise' method).

#### Multiple regression SPSS output: tables of coefficients

The value of beta, the standardised coefficient reflects the strength of association of each independent variable with self-reported general health. Positive (or negative) beta coefficients show the increase (or decrease) in the standardised dependent variable (self-reported health) for a unit increase in the independent variable, allowing for all the other independent variables. The highest positive (or negative) values reflect the strongest associations.



**Table A28: Self-reported health, with socio-demographic variables controlled**

Model	Variable	Standardized coefficients, beta	t	Sig
0	agegroup	.232	14.82	.000
	highed	.173	13.29	.000
	car	-.105	-7.95	.000
	prevcoup	.013	0.98	.327
	single	.051	3.56	.000
	mixed	.015	1.23	.218
	asian	.082	6.05	.000
	black	-.012	-0.86	.388
	chinoth	.011	0.91	.362
	north	.063	4.18	.000
	midengl	.048	3.13	.002
	london	.049	2.95	.003
	female	.009	0.75	.453

*Dependent variable: healthgn (self-reported general health)*

**Table A29: Self-reported health, with socio-demographic variables and whether engaged in any arts controlled**

Model	Variable	Standardized coefficients, beta	t	Sig
1	agegroup	.224	14.21	.000
	highed	.169	12.96	.000
	car	-.101	-7.66	.000
	single	.049	3.42	.001
	prevcoup	.009	0.66	.507
	asian	.079	5.84	.000
	black	-.012	-0.89	.375
	chinoth	.009	0.71	.480
	mixed	.014	1.18	.239
	north	.063	4.19	.000
	midengl	.046	3.03	.002
	london	.048	2.91	.004
	female	.009	0.75	.454
	engagany	-.054	-4.40	.000

*Dependent variable: healthgn (self-reported general health)*

**Table A30: Self-reported health, with socio-demographic variables and whether attended any performing or non-performing arts or culture controlled**

Model	Variable	Standardized coefficients, beta	t	Sig
2	agegroup	.214	13.60	.000
	highed	.145	10.88	.000
	car	-.091	-6.92	.000
	single	.053	3.71	.000
	prevcoup	.010	0.74	.459
	asian	.074	5.51	.000
	black	-.013	-0.94	.346
	chinoth	.007	0.60	.547
	mixed	.016	1.34	.180
	north	.057	3.82	.000
	mideangl	.045	2.98	.003
	london	.047	2.88	.004
	female	.009	0.76	.446
	attend	-.114	-8.84	.000

*Dependent variable: healthgn (self-reported general health)*

**Table A31: Self-reported health, with socio-demographic variables and whether attended performing arts controlled**

Model	Variable	Standardized coefficients, beta	t	Sig
3	agegroup	.228	14.59	.000
	highed	.154	11.51	.000
	car	-.094	-7.11	.000
	single	.054	3.77	.000
	prevcoup	.011	0.86	.392
	asian	.075	5.53	.000
	black	-.015	-1.07	.283
	chinoth	.010	0.78	.437
	mixed	.017	1.41	.159
	north	.057	3.75	.000
	midengl	.044	2.88	.004
	london	.047	2.87	.004
	female	.010	0.85	.394
	attlive	-.084	-6.69	.000

*Dependent variable: healthgn (self-reported general health)*

**Table A32: Self-reported health, with socio-demographic variables and whether attended non-performing arts or culture controlled**

Model	Variable	Standardized coefficients, beta	t	Sig
4	agegroup	.211	13.39	.000
	highed	.142	10.57	.000
	car	-.092	-6.98	.000
	single	.055	3.84	.000
	prevcoup	.012	0.89	.376
	asian	.075	5.56	.000
	black	-.014	-1.03	.304
	chinoth	.008	0.68	.497
	mixed	.016	1.31	.189
	north	.058	3.87	.000
	midengl	.045	2.99	.003
	london	.047	2.88	.004
	female	.010	0.85	.398
	attnoliv	-.112	-8.59	.000

*Dependent variable: healthgn (self-reported general health)*

**Table A33: Self-reported health, with socio-demographic variables and whether participated in any activity controlled**

Model	Variable	Standardized coefficients, beta	t	Sig
5	agegroup	.222	14.07	.000
	highed	.164	12.45	.000
	car	-.101	-7.70	.000
	single	.059	4.06	.000
	prevcoup	.013	1.00	.316
	asian	.077	5.67	.000
	black	-.011	-0.82	.415
	chinoth	.009	0.71	.476
	mixed	.017	1.41	.158
	north	.062	4.13	.000
	midengl	.046	3.02	.003
	london	.048	2.90	.004
	female	.013	1.09	.276
	partany	-.054	-4.21	.000

*Dependent variable: healthgn (self-reported general health)*

**Table A34: Self-reported health, with socio-demographic variables and whether participated in any creative activity controlled**

Model	Variable	Standardized coefficients, beta	t	Sig
6	agegroup	.232	14.78	.000
	highed	.173	13.28	.000
	car	-.104	-7.87	.000
	single	.052	3.59	.000
	prevcoup	.013	0.96	.336
	asian	.081	6.03	.000
	black	-.012	-0.86	.392
	chinoth	.011	0.92	.360
	mixed	.015	1.24	.215
	north	.063	4.19	.000
	midengl	.047	3.07	.002
	london	.049	2.95	.003
	female	.009	.71	.480

*Dependent variable: healthgn (self-reported general health)*

*Excluded variable: partcrea*

**Table A35: Self-reported health, with socio-demographic variables and whether participated in any sociable activity controlled**

Model	Variable	Standardized coefficients, beta	t	Sig
7	agegroup	.232	14.76	.000
	highed	.173	13.28	.000
	car	-.104	-7.87	.000
	single	.051	3.56	.000
	prevcoup	.013	0.97	.333
	asian	.081	6.03	.000
	black	-.012	-0.85	.395
	chinoth	.011	0.92	.357
	mixed	.015	1.25	.213
	north	.063	4.19	.000
	midengl	.047	3.05	.002
	london	.049	2.95	.003
	female	.009	0.71	.470

*Dependent variable: healthgn (self-reported general health)*

*Excluded variable: partsoci*



**Table A36: Self-reported health, with socio-demographic variables and whether participated in dance controlled**

Model	Variable	Standardized coefficients, beta	t	Sig
8	agegroup	.227	14.52	.000
	highed	.166	12.72	.000
	car	-.101	-7.68	.000
	single	.054	3.76	.000
	prevcoup	.011	0.81	.419
	asian	.080	5.98	.000
	black	-.003	-0.23	.820
	chinoth	.010	0.84	.399
	mixed	.019	1.60	.109
	north	.062	4.14	.000
	mideangl	.046	3.05	.002
	london	.049	2.99	.003
	female	.022	1.81	.071
	partphys	-.072	-5.78	.000

*Dependent variable: healthgn (self-reported general health)*

**Table A37: Self-reported health, with socio-demographic variables and whether accessed media controlled**

Model	Variable	Standardized coefficients, beta	t	Sig
9	agegroup	.225	14.22	.000
	highed	.170	12.96	.000
	car	-.102	-7.75	.000
	single	.051	3.51	.000
	prevcoup	.012	0.88	.379
	asian	.078	5.79	.000
	black	-.014	-1.06	.290
	chinoth	.010	0.79	.429
	mixed	.014	1.19	.234
	north	.063	4.15	.000
	midengl	.046	3.04	.002
	london	.048	2.93	.003
	female	.009	0.73	.465
	mediaany	-.039	-3.18	.001

*Dependent variable: healthgn (self-reported general health)*

**Table A38: Self-reported health, with socio-demographic variables and whether listened to arts on CDs etc controlled**

Model	Variable	Standardized coefficients, beta	t	Sig
10	agegroup	.212	13.19	.000
	highed	.164	12.42	.000
	car	-.101	-7.64	.000
	single	.049	3.38	.001
	prevcoup	.010	0.77	.441
	asian	.070	5.09	.000
	black	-.015	-1.07	.283
	chinoth	.008	0.67	.505
	mixed	.014	1.14	.255
	north	.065	4.28	.000
	mideangl	.047	3.07	.002
	london	.049	2.99	.003
	female	.007	0.56	.574
	medlisnr	-.065	-5.10	.000

*Dependent variable: healthgn (self-reported general health)*

**Table A39: Self-reported health, with socio-demographic variables and whether listened to arts on radio controlled**

Model	Variable	Standardized coefficients, beta	t	Sig
11	agegroup	.220	13.84	.000
	highed	.168	12.83	.000
	car	-.099	-7.53	.000
	single	.050	3.48	.001
	prevcoup	.011	0.85	.394
	asian	.081	6.02	.000
	black	-.013	-0.94	.350
	chinoth	.009	0.71	.478
	mixed	.014	1.19	.234
	north	.063	4.15	.000
	midengl	.047	3.09	.002
	london	.019	2.98	.003
	female	.006	0.54	.591
	medlisra	-.050	-4.00	.000

*Dependent variable: healthgn (self-reported general health)*

**Table A40: Self-reported health, with socio-demographic variables and whether watched arts on TV etc controlled**

Model	Variable	Standardized coefficients, beta	t	Sig
12	agegroup	.229	14.56	.000
	highed	.170	13.03	.000
	car	-.103	-7.81	.000
	single	.052	3.63	.000
	prevcoup	.013	0.96	.337
	asian	.080	5.96	.000
	black	-.012	-0.89	.373
	chinoth	.011	0.90	.366
	mixed	.015	1.27	.204
	north	.064	4.21	.000
	mideangl	.047	3.09	.002
	london	.047	2.87	.004
	female	.009	0.76	.450
	medtvvet	-.034	-2.86	.004

*Dependent variable: healthgn (self-reported general health)*

**Table A41: Self-reported health, with socio-demographic variables and whether watched arts through internet controlled**

Model	Variable	Standardized coefficients, beta	t	Sig
13	agegroup	.231	14.71	.000
	highed	.174	13.32	.000
	car	-.104	-7.89	.000
	single	.051	3.54	.000
	prevcoup	.013	0.96	.340
	asian	.081	6.00	.000
	black	-.012	-0.87	.382
	chinoth	.011	0.90	.367
	mixed	.015	1.22	.221
	north	.063	4.18	.000
	midengl	.047	3.10	.002
	london	.049	2.96	.003
	female	.009	0.73	.466

*Dependent variable: healthgn (self-reported general health)*

*Excluded variable: medintnt*

**Table A42: Self-reported health, with socio-demographic variables and whether attended performing arts, non-performing arts or culture, participated in creative, sociable or dance activities or accessed arts through CDs etc, radio, TV etc or internet controlled**

Model	Variable	Standardized coefficients, beta	t	Sig
14	agegroup	.198	12.27	.000
	highed	.127	9.33	.000
	car	-.085	-6.47	.000
	single	.055	3.82	.000
	prevcoup	.007	0.56	.576
	asian	.064	4.71	.000
	black	-.011	-0.81	.418
	chinoth	.005	0.43	.665
	mixed	.019	1.60	.109
	north	.056	3.72	.000
	mideangl	.044	2.91	.004
	london	.047	2.89	.004
	female	.021	1.71	.088
	attnoliv	-.086	-6.33	.000
	partphys	-.055	-4.36	.000
	attlive	-.048	-3.67	.000
	medlisnr	-.041	-3.19	.001

*Dependent variable: healthgn (self-reported general health)*

*Excluded variables: partcrea, partsoci, medlisra, medtvvet, medintnt*

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ISBN: 0-7287-1070-6

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Produced by Chatland Sayer, London