



STAYING ENGAGED:

HEALTH PATTERNS OF OLDER AMERICANS WHO PARTICIPATE IN THE ARTS

An Analysis Based on the Health and Retirement Study

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by Kumar B. Rajan, PhD, and Rekha S. Rajan, EdD, PANCH Research, LLC
for the National Endowment for the Arts



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Sunil Iyengar, Director
Patricia Moore Shaffer, Deputy Director
Ellen Grantham, Program Analyst
Melissa Menzer, Program Analyst
Erin Chang, Intern
Michelle Plunkett, Intern

Prepared for the National Endowment for the Arts by Kumar B. Rajan, PhD, and Rekha S. Rajan, EdD, PANCH Research, LLC

Editorial assistance by Don Ball and Rebecca Sutton

Designed by Kelli Rogowski

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PREFACE

This report accomplishes several purposes for contemporary research into the arts' value for older Americans. Not least, it responds to challenges raised by a National Academy of Sciences (NAS) research workshop on the arts and aging.

Cosponsored by the National Endowment for the Arts (NEA) and the National Institutes of Health (NIH), the 2012 workshop featured some of the most compelling bio-behavioral studies known to exhibit a positive relationship between arts activities—in theater, music, and storytelling, for example—and health outcomes of older adults. For every study under review, workshop participants seemed to declare even more gaps and research questions. (See a 2013 NEA/NIH report summarizing the workshop: <https://www.arts.gov/sites/default/files/Arts-and-Aging-Building-the-Science.pdf>.)

A recurring theme was the shortage of longitudinal or cross-sectional data that might be marshaled into experimental or quasi-experimental studies of the arts' benefits throughout the lifespan. Another apparent need was greater understanding about older adults' patterns of "active versus passive" participation in various art forms—and how this difference can affect the arts-and-health relationship. The present report marks a first step by researchers to plug both knowledge gaps.

Staying Engaged examines data from the Health and Retirement Study (HRS), a nationally representative sample of older adults (in this case, aged 55 years and older) who are tracked longitudinally. In 2014, for the first time, the HRS included a special survey supplement—a "Culture and Arts" module—asking subjects about their arts experiences in the last year, and about their general attitudes toward the arts. Accordingly, authors Rekha and Kumar Rajan are able to compare self-reported health outcomes for older adults who engaged in one or more types of arts participation (or none at all) in 2014. The longitudinal study design also permits the Rajans to analyze the 2002-2014 health profiles of older adults who, in 2014, reported varying levels of arts participation.

Apart from mining a new data source for information about the arts patterns and health outcomes of older Americans, the Rajans explore differences among subjects who only attended the arts, who also or only

created art, or who did no arts activities whatsoever. In brief, the Rajans find that **older adults who both created and attended art in 2014 reported better health outcomes** that year (lower rates of hypertension and greater cognitive and physical functioning) than did adults who neither created nor attended art. Subjects active in both art categories—creating and attending—also experienced slower rates of decline in cognitive and physical functioning over the last decade, and less growth in hypertension, compared with other older adults. **Greater frequency of arts attendance and arts creation** also were positively linked to health outcomes.

The findings thus contribute to a body of literature about plausible health benefits linked with personal art-making, in therapeutic or non-therapeutic settings. What's different here is the apparently positive relationship between arts attendance (especially when complemented by personal art-making) and certain health outcomes. The news is welcome when we consider that recent surveys have shown older adults as virtually the only demographic group to have seen growth in its rates of arts attendance in the last decade. (See this report: <https://www.arts.gov/sites/default/files/2012-sppa-feb2015.pdf>).

Although the Rajans are careful to warn readers not to make causal inferences of these associations, *Staying Engaged* lays the groundwork for future longitudinal research that could use rigorous study designs to test the strength and direction of arts-and-health relationships in older Americans. The report also builds on the NEA's partnership with several other federal agencies to investigate the arts' role in health and human development across the lifespan. The partnership, called the Interagency Task Force on the Arts and Human Development (and described here: <https://www.arts.gov/partnerships/task-force>), includes membership from the National Institute on Aging, which also funds the Health and Retirement Study. Using the HRS data, later analysts should be able to track future health outcomes of older adults who in 2014 reported high levels of arts participation, whether as creators or as audience members.

Sunil Iyengar
Director, Office of Research & Analysis
National Endowment for the Arts



A festival-goer enjoying the 2011 National Black Arts Festival in Atlanta, Georgia. Photo by Sophia Barrett Photography

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EXECUTIVE SUMMARY

The possibility of routine arts participation contributing directly to the cognitive, social, and physical functioning of older adults is an attractive concept, given the need of U.S. policymakers to improve health outcomes and reduce health costs for our growing elderly population.

We are far from showing conclusively that arts participation by itself causes beneficial effects in older adults. Still, in study after study, researchers have identified positive changes in health and psychological well-being—or at least slower rates of functional declines—among older adults who engage regularly with arts activities, in contrast to the outcomes for older adults who do not participate in the arts.

Much of this earlier research has observed older adults creating, practicing, or performing art: activities such as dancing, singing, painting, or acting. And yet, social activities such as visiting art museums or galleries, going to see a movie, or attending a live performing arts event have received little attention for their potential relationships to health and well-being in old age.

Notwithstanding this implied research question, previous reports suggest that older adults' rates of art-going are held back by physical and cognitive disabilities, and by a real or perceived lack of access to arts venues. For example, the NEA's Arts Data Profile, *A Matter of Choice? Arts Participation Patterns of Disabled Americans* noted that only 7 percent of all disabled adults attended a live performing arts event or visited a museum in 2012, compared with 12 percent of U.S. adults as a whole. The point is especially relevant to older adults (in the case of that report, people aged 65 years and older), who make up fewer than 20 percent of the U.S. adult population while accounting for 45 percent of all adults with disabilities.

Recent reports also show that arts attendance by older adults has increased relative to the attendance rates of older adults from previous years. Additionally, through surveys, many older adults have expressed an interest in attending arts events despite having health problems. Building on this evidence, the present report suggests a need to expand opportunities for older adults to create art and to attend arts events.

Among other findings, this report shows that roughly one in three older adults (37 percent of adults aged 55 years and older) reported some difficulty in participating in the arts, even as most older adults (77 percent) affirmed their appreciation for the arts, and 7.5 percent expressed an interest in attending an arts event but could not go for reasons of inaccessibility. Also, older adults find the arts to be important (64 percent); they believe that the arts help them stay active and engaged (55 percent), and that the arts help them to socialize with family and friends (59 percent). Furthermore, older adults also report enjoying arts activities (67 percent), while a smaller fraction report liking to take classes or lessons in the arts (29 percent). Only 14 percent report having no interest in the arts.

Presenting the arts participation rates of older adults as a group is only one function of this report. Its primary function is to examine whether pro-arts behaviors are associated with cognitive health, limitations to physical functioning, and rates of hypertension. Even within this function, the report fulfills three purposes: (1) describe how participation in various arts activities are correlated with health outcomes in a 2014 sample of older adults; (2) describe how changes in health measured prior to 2014 are associated with arts participation in 2014; and (3) generate hypotheses that can be used to test if these cross-sectional and retrospective associations hold in future prospective and randomized studies. In the service of these goals, the Health and Retirement Study (HRS) is one of the few longitudinal and nationally representative studies that has significant power and size to investigate the association of the arts on aging in a diverse multi-ethnic sample.

Arts Participation Rates

This section describes the arts participation habits of the nation's older adults (55 years and older).

Data from the 2014 HRS were used for this report. Through a special module, the HRS survey asked respondents whether they had participated in a variety of arts and cultural activities in the last 12 months. For the purpose of analysis, arts participation has been categorized as either "Creating Art" or "Attending Art."

Older adults are recorded as **Creating Art** if they report having done at least one of the following types of activities in the 12 months prior to the survey: visual art-making; dancing (including social dancing); singing or playing a musical instrument; acting; making photography, graphic design, or film; or writing stories, poetry, or plays. Each Creating Art activity was asked as a separate item.

By contrast, older adults are recorded as **Attending Art** if they report having attended at least one of the following types of activities in the 12 months prior to the survey: an art museum, gallery, arts or craft fair; a live performance, such as a concert, play, or reading; or the movies. In contrast to the items for Creating Art, these activities were listed together under one question.

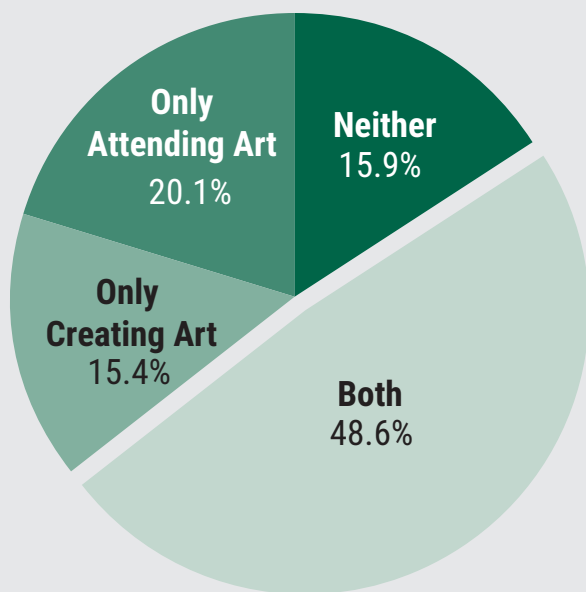
Separately, older adults are recorded as **Reading** if they had read any novels, short stories, poetry, or plays in the preceding year.

1. In 2014, approximately 84.1 percent of older adults (aged 55 years and older) participated in the arts *either* by Creating Art or Attending Art or doing both (*Figure i*). The participation rates are measured by the share of older adults who reported having done one of the following activities in the past 12 months:

- Creating Art (64 percent of older adults), which includes:
 - Visual Arts (39.5 percent of older adults), which includes:
 - Weaving, crocheting, quilting, knitting, sewing, needlepoint, or making jewelry (27.0 percent)
 - Painting, sculpting, or making ceramics (7.3 percent)
 - Leatherwork, metal work, or woodwork (12.1 percent)
 - Performing Arts (38.4 percent of older adults), which includes:
 - Dancing, including social dancing (24.3 percent of older adults)
 - Singing or playing an instrument (19.2 percent)
 - Acting in theater or film (1.1 percent)
 - Media Arts: Doing photography, graphic design, or filmmaking (12.9 percent of older adults)
 - Creative Writing: Writing stories, poetry, or plays (6.8 percent of older adults)
- Attending Art (68.7 percent of older adults): Attending an art museum or gallery; an arts or crafts fair; a live performance, such as a concert, play, or reading; or going to see a movie

2. 57.7 percent of older adults read novels, short stories, poetry, or plays.
3. 20.1 percent of older adults participated in Attending Art *but not* in Creating Art.
4. 15.4 percent of older adults participated in Creating Art *but not* in Attending Art.
5. 48.6 percent participated in the arts by *both* Attending Art and Creating Art, and 15.9 percent did not participate in any arts activities *at all*.

Figure i. Percentage of Older Adults Who Participated in the Arts during the Past 12 Months, by Category of Activity (2014).



Attitudes about the Arts

This section describes older adults' attitudes about the arts. Previous research has captured various kinds of motivations—as well as self-reported barriers—affecting older adults' attendance at arts events.¹ For example, findings from an analysis of the General Social Survey (GSS) observed that approximately 72 percent of adults aged 65 and older cited learning and experiencing high-quality art as motivations for attending arts events. Additionally, analysis of the GSS data found that the most common barriers to attending arts events—among adults aged 55 years and older and who had poor health—were difficulty getting to the venue or being unable to access the location of the arts activity.

In the HRS Culture and the Arts module, older adults' attitudes were measured through self-reported responses to a list of eight statements about the arts in general. These items asked adults aged 55 years and older to rate their levels of agreement with the following statements (percentages refer to the extent to which the respondents agreed or strongly agreed):

- I feel a sense of appreciation for the arts (77.2 percent)
- I enjoy the arts (66.8 percent)
- The arts are important (63.8 percent)
- The arts help me to socialize (58.6 percent)
- The arts help me to be active and engaged (54.9 percent)
- It is difficult to participate in the arts (36.8 percent)
- I like taking lessons or classes in the arts (29.0 percent)
- I don't have any interest in the arts (14.1 percent)

Health-Related Outcomes

This section describes the cross-sectional and retrospective associations between older adults' behaviors and attitudes concerning arts activities—with the behavioral part focused on whether older adults engaged in only Creating Art, only Attending Art, doing both, or doing neither—and a variety of positive health outcomes tracked by the Health and Retirement Study. The outcomes fall into three categories: Cognitive, Physical, and Cardiovascular Health. In this report, cognitive data were derived from HRS questionnaires fielded biennially from 2002 (when an initial assessment was made). Physical and cardiovascular measures also were based on biennial questionnaires from 2002. All health outcomes data were collected through 2014.

1. **In 2014, older adults who participated in both Creating Art and Attending Art had higher levels of cognitive functioning and lower rates of limitations to daily physical functioning, as well as lower rates of hypertension, relative to older adults who did *neither* type of activity.**
2. **In 2014, older adults who participated in *only* Attending Art still had higher cognitive functioning, lower rates of hypertension, and lower rates of limitations to daily physical functioning than did older adults who *neither* Created Art *nor* Attended Art.**
3. **Among older adults who participated in *both* Creating *and* Attending Art in 2014, levels of cognitive functioning had decreased at a slower rate from 2002 to 2014, compared with levels for older adults who did *only* Creating Art activities or who did *neither* Creating Art *nor* Attending Art activities. The same advantage was noted for older adults who *only* attended art.**
4. **Among older adults who participated in *both* Creating Art *and* Attending Art in 2014, rates of hypertension and limitations to daily physical functioning had grown more slowly from 2002 to 2014, compared with the pattern for respondents who did *neither* Creating Art *nor* Attending Art activities. The same dual advantage was noted for older adults who *only* attended art.**

1 National Endowment for the Arts (2015).

About the Report and Analysis

This report presents findings from a descriptive analysis of the 2014 HRS Culture and the Arts module. The Health and Retirement Study (HRS) is a biennial, longitudinal study of older Americans—of their economic, health, marital, and family status. Consisting of a large, nationally representative sample of adults aged 55 years and older, the HRS is funded by the National Institute on Aging, with supplemental support from the Social Security Administration. Data collection began in 1992, with surveys conducted by the Institute for Social Research (ISR) Survey Research Center (SRC) at the University of Michigan.²

The primary data source for this report is participants who responded to the 2014 HRS core interviews and who were randomly selected to respond to the 2014 HRS “Culture and the Arts” module (*sample size* = 1,498, *mean age* = 67.1 years, 58.7 percent females, 82.2 percent Non-Hispanic white). Health and well-being measures are based on self-reported data about individuals’ cognitive health, functional limitations, and hypertension. For representativeness of the U.S. older adult population, all descriptive analyses and graphical numbers in this report are sample-weight-adjusted estimates.³ Unless noted otherwise, statistical-significance tests have not been conducted for any of the differences shown.

The survey items in the Culture and the Arts module focus on arts participation, which involved having participated in Creating Art activities (e.g., singing, doing visual arts or crafts, playing an instrument, or dancing) and/or in Attending Art activities (e.g., attending a film, play, or concert or visiting an art museum) within the 12 months prior to assessment.

The goals of the present report are to describe 1) older adults’ participation in Creating Art and/or Attending Art, by type and level of activity and by demographic characteristics; 2) older adults’ attitudes about the arts; and 3) the relationship between the self-reported health outcomes of older adults and their attitudes about the arts and behaviors (i.e., Creating and/or Attending) involving the arts.

Part I provides the reader with operational definitions and an overview of extant literature about arts participation. Part II uses the 2014 HRS Culture and the Arts module data to present findings on older adults’ participation in the arts. It gives rates of participation within the categories of Creating Art and Attending Art. The section also shows those rates by gender, race/ethnicity, age (within the 55-years-and-older range), education level, and marital status. Next, it presents older adults’ attitudes about the arts—and related demographic variables—while referencing previously published survey data, and again using the 2014 HRS Culture and the Arts module data. Part III describes associations between arts-related attitudes and behaviors (Creating Art, Attending Art, both, or neither) of older adults and their health and well-being outcomes.

Self-reported health outcomes under review pertain to cognition, physical functioning, and cardiovascular health. As a primary focus, the researchers performed a cross-sectional analysis of how these health outcomes were associated to arts participation in 2014. Secondary analyses considered how arts participation in 2014 was retrospectively associated with health outcomes up to 12 years prior to 2014. Finally, Part IV discusses opportunities for building on this research and for using the data to stimulate older adults’ engagement with Creating Art and Attending Art across multiple settings.

2 Health and Retirement Study (1998).

3 Ofstedal, Weir, Chen, & Wagner (2011).

PART I: DEFINING ARTS PARTICIPATION AMONG OLDER ADULTS

As older adults continue to experience losses in cognitive and physical function and rises in chronic health conditions⁴, researchers and policymakers have shown a corresponding interest in how behavioral interventions and/or community-based programs or interventional therapies can support the aging process.

Some of this new focus extends to the arts. In 2011, the National Endowment for the Arts (NEA) inaugurated a Federal Interagency Task Force on the Arts and Human Development.⁵ The Task Force highlights the importance of research on the benefits of arts engagement for older adults, and recognizes the potential of arts experiences to help delay cognitive and physical declines for this population.

As one of the Task Force's first major activities, the NEA teamed with the National Institutes of Health to sponsor a National Academy of Sciences workshop titled "Research Gaps and Opportunities for Exploring the Relationship of the Arts to Health and Well-Being in Older Adults." The resulting report, *The Arts and Aging: Building the Science* (2013), urged more rigorous and representative studies of this relationship within large cohorts of older adults.⁶ A subsequent NEA report, *The Summit on Creativity and Aging in America* (2016), addressed the need for interdisciplinary research collaborations to expand the evidence base.⁷

Current literature is scant on the benefits of arts participation to the aging process. Much of the extant work, however, does suggest that arts participation has a positive relationship to health-related outcomes in older adults. In small, randomized control trials, for example, Cohen⁸ found that older adults assigned to an arts program saw stronger improvements in physical health and well-being, compared with older adults assigned to a control group. Despite some

gains in research on the linkages between the arts and aging, much of the literature has been hindered by small, homogeneous samples and by the lack of an experimental study design. Indeed, the complex relationships between arts participation and a variety of other factors—e.g., socio-demographic characteristics, health and disability status, and lifestyle choices—all prevent generalizations about the arts' potential impact on the well-being of older adults.

In addition, much research concerning a link between arts participation and positive health outcomes does not account for a distinction between different types of arts activities. Most research has focused on **Creating Art** rather than on **Attending Art**; alternatively, studies have also probed the interaction between Creating Art and Attending Art.

For this report, Creating Art includes the process of generating, conceptualizing, and making works of art, such as (but not limited to) dancing, painting, singing, woodworking, and knitting. Attending Art includes activities that invite older adults to observe, analyze, and interpret works of art, such as (but not limited to) attending a play or going to an art museum or festival.

These definitions of arts participation were derived from two conceptual frameworks: the National Core Art Standards (NCAS) for learning⁹ and the Health Disparities Research Framework¹⁰, which was recently developed by the National Institute on Aging. The NCAS framework inspired the distinction between "creating" and "attending" art—a dichotomy reflected also in the content of the HRS Culture and the Arts questionnaire. Although the NCAS were constructed as a guide for unifying arts education across PreK-12 school settings, the terms also provide a context for understanding arts participation elsewhere. The framework stresses the notion that the arts encourage and enhance creative thinking and problem-solving skills across settings.

4 Evans, Bennett, Wilson, Bienias, Morris, Scherr et al. (2003); Rajan, Rajan, Manning, & Evans (2016).

5 National Endowment for the Arts (2011).

6 National Endowment for the Arts (2013b).

7 National Endowment for the Arts (2016).

8 Cohen (2006).

9 National Core Arts Standards (2014).

10 Hill, Pérez-Stable, Anderson, & Bernard (2015).

The Health Disparities Research Framework¹¹ argues for building on prior research results while pursuing new and rigorous methods to study aging populations. This framework highlights the importance of examining the environmental, biological, and behavioral factors that may influence or deter the aging process. The present report applies functional and biological measures to this framework to analyze whether arts participation may contribute to the health of aging populations and may account for differences between healthy and less healthy older adult populations.¹² Under this framework, activities involving Creating Art, Attending Art, doing both, or doing neither, can be viewed as behavioral factors relative to individual health and well-being outcomes. Functional and biological measures within the HRS are of particularly high importance to aging populations. Cognitive health is measured by a composite cognitive function, physical health measured by instrumental activities of daily living (IADL), and biological health measured by self-reported hypertension status.

Creating Art

The majority of research on the association between arts participation and older adults' health has focused on opportunities for Creating Art. For example, in the Creativity and Aging Study, Cohen found positive associations between intensive, participatory arts programs (led by professional artists) and the physical and mental health functioning of older adults.¹³ Using an experimental study design, the intervention group featured older adults who engaged in intensive, participatory art programs (with a subsample taking part in chorale group singing) while control-group members were not engaged in the programs. Targeted outcomes were a greater improvement in health and well-being among older adults in the arts intervention group (from pre-intervention to post-intervention and when compared to the control group). The researchers also concluded that social engagement was enhanced because all of the art programs included participation and interpersonal interaction.

A previous review of literature on the impact of arts participation on the health and well-being of older adults, particularly arts participation that had been facilitated or taught by professional artists¹⁴, used four criteria for identifying articles: (a) the articles had to include creative activities that either exclusively targeted or included older adults; (b) the activities did not include clinical therapies of any kind or arts-and-craft activities, because, the authors state, "they do not require professional artists nor do arts-and-crafts activities build upon a set of developing skills and creativity from one session to the next"; (c) the activity had to be participatory rather than observant; and (d) at least one health-related benefit had to be documented. The review tagged only 11 articles published between 1985 and 2006 as focusing on participatory arts programs and older adults. The researchers concluded that although there was a noteworthy range of potential health benefits for older adults, the studies were limited by the short timeframe in which data were collected.

More recent studies have used a mixed-methods approach to examine the effects of a community-engaged arts program on the physical, social, and emotional well-being of older adults.¹⁵ In one noteworthy study, artists worked with four groups of seniors over three years to create art gallery exhibits and art performances. Findings documented the following benefits from a community-based arts program: (1) providing structure and discipline; (2) facilitating coping; (3) requiring hard work and effort; (4) bringing out one's artistic side; (5) promoting social involvement; and (6) making a contribution to the community.

Additionally, researchers concluded that active participation in the arts encouraged older adults to lead a healthier lifestyle. Moreover, studies examining older adults' active participation in theater workshops resulted in improved cognitive skills and quality of life for participants¹⁶, while researchers have also noted that older women involved in jazz dance classes showed an improvement in balance but no improvement in mood or psychological well-being.¹⁷

11 Hill et al. (2015).

12 Anderson (1998).

13 Cohen (2006).

14 Castora-Binkley, Noelker, Prohaska, & Satariano (2010).

15 Phinney, Moody, & Small (2014).

16 Noice & Noice (2006); Tolladay (2006).

17 Alpert, Miller, Wallmann, Havey, Cross, Chevalia, et al. (2009).

Researchers have also sought to identify the role of musical training, instruction, and listening on the mental capacities of older adults during specific stages of aging and over a sustained period of time. Studies focusing on the association between music and cognitive function have looked at the impact of music-based training on gait¹⁸ and mood¹⁹. For example, researchers examined music-based training through a secondary analysis of results from a randomized-controlled trial. The researchers concluded that six months of once-weekly music-based training was associated with improved cognitive function and decreased anxiety among older adults. Similarly, researchers using a Music, imagery, and Movement (MiM) treatment intervention found that after ten weeks, participants in the intervention group showed a decrease in their depression scores.²⁰ These findings collectively highlight the value of engaging older adults in Creating Art activities.

Attending Art

While much research about the arts and the cognitive ability of older adults has focused on studying older adults who create art (e.g., through musical training or music-making), a less-investigated question is whether **Attending Art** (e.g., going to art museums or galleries, films, or live performances) can contribute to positive health-related outcomes.

Specifically, researchers have found that older adults with cognitive impairments can sustain attention to music across a listening activity, despite their impairments.²¹ Furthermore, other researchers conducted a single-blinded, randomized-controlled trial to determine if music-listening can enable the recovery of cognitive function of older adults after stroke.²² The results showed that the music group experienced less depression and mood confusion, and that recovery in the domains of verbal memory and attention improved significantly.

Elsewhere, using data from the Chicago Health and Aging Project (CHAP), a large-scale, 18-year longitudinal study, researchers found that attendance at live performing arts events (a concert, play, or musical) was associated with slower cognitive decline in older adults after the researchers had adjusted for demographic characteristics.²³ This association was observed in individual neurocognitive tests for memory and executive functioning.

Previous research reports from the NEA have identified how older adults participate in Attending Art activities. In one example, data from the General Social Survey (GSS) found that older adults, aged 55 years and older, were more likely to attend live, performing arts events than art exhibits. Importantly, the majority of older adults reported attending both types of art activities.

Additionally, researchers have noted barriers to older adults' attendance at arts events. Data from the GSS showed that approximately 43 percent of older adults wanted to attend an art exhibit, and 33 percent reported wanting to attend a performance, but were unable to attend because it was difficult to get there or because they had some kind of disability. On the positive side, the NEA's Survey of Public Participation in the Arts (SPPA)²⁴ found that older adults were the only demographic sub-group to have seen an increase in attendance rates for live performing arts events between 2002 and 2012.

Creating Art and Attending Art

As suggested earlier, much of the extant literature focuses on Creating Art and how this activity type relates to the health and well-being of older adults. Fewer studies have addressed the role of Attending Art—observing, analyzing, and interpreting art—with respect to geriatric health outcomes. Even less is known regarding how and whether Creating Art and Attending Art work together to improve older adults' health and well-being.

For example, in an empirical investigation of engagement in the arts in later life, Lewis, Jewell, Jackson, & Merchant found that among self-reported measures from 102 retired men and women, nearly 99 percent recorded some level of *both* observing

18 Maclean, Brown, & Astell (2014).

19 Hars, Herrmann, Gold, Rizzoli, & Trombetti (2014).

20 Matto, Tompkins, Ihara, Inoue, & Byrd (2015).

21 Gregory (2002).

22 Särkämö, Tervaniemi, Laitinen, Forsblom, Soinila, Mikkonen et al. (2008).

23 Rajan et al. (2016).

24 National Endowment for the Arts (2013a).

and interpreting the arts.²⁵ Of the various options provided to participants, listening to music and visiting the theater or ballet ranked among the highest in personal interests for Attending Art activities. However, the authors argued for greater “active” participation—that is opportunities for Creating Art—among older adults, to support overall physical and mental health.

In one case, researchers²⁶ conducted a meta-analysis of 27 therapeutic trials with the criteria of identifying studies that examined how music might affect quality of life. A secondary goal of this analysis was to identify if music activities, such as playing an instrument, singing, listening, and analyzing, were associated with any specific health outcomes in individuals. After including only randomized controlled trials (RCTs) and quasi-randomized trials of music interventions, researchers determined that there were no specific conclusions that could be drawn regarding the physiological and psychological effects of Attending Art. However, listening to music and singing, specifically, were found to improve mood and reduce anxiety.

Another area ripe for inquiry is the range of attitudes that older adults express toward arts activities. It would be interesting to examine how arts attitudes in the general population correlate with their levels of Attending Art and Creating Art activities, given that researchers have found a connection between arts participation (creating art) and an increase in well-being.²⁷ As the NEA’s previous findings show that relatively high percentages report an interest in attending arts events, but that many are discouraged by barriers of isolation or poor health,²⁸ one might consider how older adults rate a series of value statements about the arts.

The 2014 HRS Culture and the Arts module thus can enhance public knowledge about older adults’ patterns of arts participation (both Creating Art and Attending Art), their attitudes toward the arts in general, and the relationships of these variables to positive health and well-being outcomes.

25 Lewis, Jewell, Jackson, & Merchant (2011).

26 Dileo, Mitsudome, & Lee (2014).

27 McFadden & Lunsman (2009).

28 National Endowment for the Arts (2015).

PART II: ARTS PARTICIPATION AMONG OLDER ADULTS

This section covers older adults' arts participation patterns, as captured by four categories: *only* Creating Art, *only* Attending Art, *both* Creating Art and Attending Art, and *neither* Creating Art nor Attending Art. Arts participation rates are reported as a function of the older adults' race/ethnicity, gender, age (within the 55-years-and-older range), marital status, and education level.

Overall, 15.4 percent of older adults participated in only Creating Art, 20.1 percent participated in only Attending Art, 48.6 percent participated in both, and 15.9 percent participated in neither (Figure 1, page 4).

Older adults who identified as non-Hispanic white were more likely than other racial/ethnic groups to participate in both Creating Art and Attending Art (49.6 percent of non-Hispanic whites vs. 44.0 percent of other groups), and in only Attending Art (21.1 percent vs. 15.8 percent). They were less likely to participate in only Creating Art (14.4 percent vs. 19.9 percent) and in neither Creating Art nor Attending Art (15.0 percent vs. 20.4 percent) (Figure 2.1).

As for gender differences, women reported higher rates of participation in two groups—both Creating Art and Attending Art (51.3 percent of women vs. 44.7 percent of men), and in only Creating Art (16.4 percent of women vs. 13.9 percent of men). Women were less likely than men to have done only Attending Art activities (19.4 percent vs. 21.1 percent) or to have done neither Creating Art nor Attending Art (12.9 percent vs. 20.2 percent) (Figure 2.2).

Figure 2.1. Percentage of Older Adults Who Participated in the Arts during the Past 12 Months, by Category of Activity and by Racial/Ethnic Status (2014).

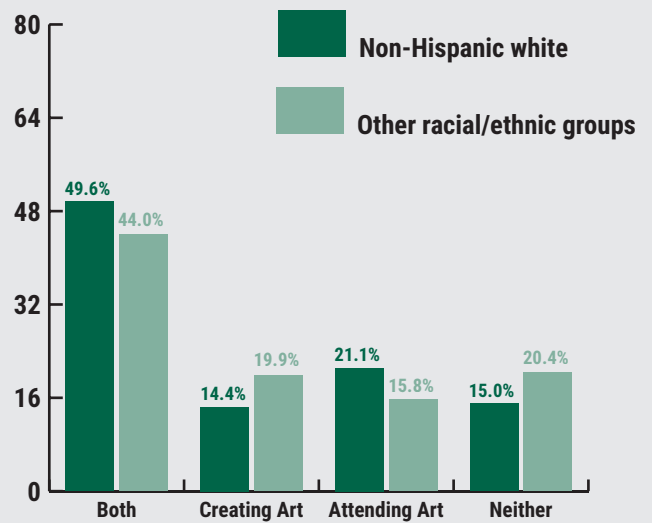


Figure 2.2. Percentage of Older Adults Who Participated in the Arts during the Past 12 Months, by Category of Activity and by Gender (2014).

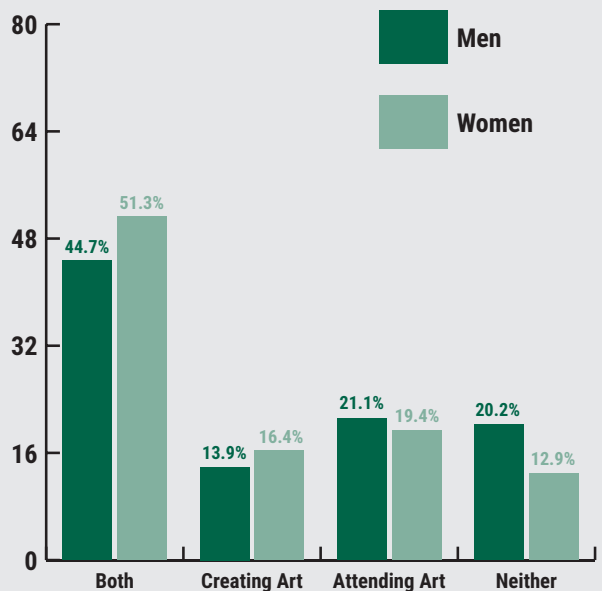


Table 2.0. Percentage of Older Adults Who Created Art, by Various Art Forms and Demographic Characteristics (2014).

	Painting	Singing	Acting	Dancing	Writing	Weaving	Woodwork	Photography
All Adults (aged 55 and older)	7.3%	19.2%	1.1%	24.3%	6.8%	27.0%	12.1%	12.9%
Age								
55-64	6.3%	19.5%	1.2%	30.0%	5.7%	28.6%	14.6%	15.3%
65 and older	8.1%	18.8%	1.1%	19.0%	7.8%	25.5%	9.9%	10.7%
Gender								
Male	3.3%	17.5%	1.3%	23.9%	5.7%	3.8%	25.6%	15.2%
Female	10.1%	20.3%	1.0%	24.6%	7.5%	43.3%	2.6%	11.3%
Race/Ethnicity								
Non-Hispanic white	7.0%	18.3%	1.2%	21.9%	6.6%	27.7%	12.9%	13.6%
Other groups	8.7%	22.9%	0.6%	35.4%	7.4%	23.7%	8.5%	9.7%
Education Level								
High school or less	5.8%	13.3%	1.0%	14.3%	4.5%	27.0%	9.3%	4.0%
More than high school	7.5%	20.2%	1.1%	26.0%	7.1%	26.9%	12.6%	14.3%
Marital Status								
Married	5.9%	20.1%	1.3%	25.1%	6.1%	26.1%	14.9%	16.0%
Single	9.3%	17.9%	0.8%	23.1%	7.7%	28.2%	8.1%	8.5%

Arts Participation Among Adults Aged 55 Years and Older: Highlights

Overall

- 57.7 percent of older adults read novels, short stories, poetry, or plays ²⁹
- 48.6 percent of older adults participated in *both* Creating Art and Attending Art
- 20.1 percent of older adults participated in *only* Attending Art
- 15.9 percent of older adults participated in *neither* Creating Art *nor* Attending Art
- 15.3 percent of older adults participated in *only* Creating Art

²⁹ For the present report, data on older adults' literary reading rates are not analyzed extensively, the authors' primary focus being on Creating Art and Attending Art as forms of arts participation. Other studies have examined health-related outcomes associated with literacy, if not with the reading of literature. See Dewalt, Berkman, Sheridan, Lohr, & Pignone (2004).

Age

- The proportion of adults aged 65 years and older who participated in *both* Creating Art and Attending Art (40.6 percent) did so at a lower rate than did adults aged 55-64 (57.4 percent).
- Adults aged 65 and older participated more frequently than did the 55-64 age group in the following activity: only Creating Art (18.8 percent vs. 11.4 percent). They were also more likely to participate in *neither* Creating Art *nor* Attending Art than were adults aged 55-64 (19.9 percent of adults 65 years and older, compared with 11.4 percent of the younger group).

Gender

- Women were more likely to participate in *only* Creating Art (16.4 percent vs. 13.9 percent) or in *both* Creating Art and Attending Art (51.3 percent vs. 44.7 percent) than were men.

- Women were less likely to participate in only Attending Art (19.4 percent vs. 21.1 percent) or neither Creating nor Attending Art (12.9 percent vs. 20.2 percent) than were men.
- Men were far more likely to create art via leatherwork or metalwork (25.6 percent) than were women (2.6 percent), who, conversely, were far more likely to weave, crochet, or knit than were men (43.3 percent vs. 3.8 percent).

Race and/or Ethnicity

- Non-Hispanic whites were more likely to participate in both Creating Art and Attending Art (49.6 percent vs. 44.0 percent) and in only Attending Art (21.1 percent vs. 15.8 percent) than were respondents from other racial/ethnic groups.
- Non-Hispanic whites were less likely to participate in only Creating Art (14.4 percent vs. 19.9 percent) or neither Creating Art nor Attending Art (15.0 percent vs. 20.4 percent) than were other racial/ethnic groups.
- Non-Hispanic whites engaged more frequently in weaving, knitting, or crocheting (27.7 percent) than did other racial/ethnic groups (23.7 percent). They also did the following activities more frequently: leatherwork/metalwork (12.9 percent of non-Hispanic whites vs. 8.5 percent of other groups), and photography or film (13.6 percent vs. 9.7 percent).
- Racial/ethnic groups other than non-Hispanic white participated in the following activities at higher rates than did non-Hispanic whites: singing or playing a musical instrument (22.9 percent vs. 18.3 percent), dancing (35.4 percent vs. 21.9 percent), and painting, sculpting, and making ceramics (8.7 percent vs. 7.0 percent).

Education

- Most notably, respondents who were college-educated were more likely to participate in both Creating Art and Attending Art (58.2 percent vs. 37.1 percent of less-educated respondents) and in only Attending Art (23.5 percent vs. 16.1 percent) than were older adults who had a high school education or less.
- Participants who had a high school education or less were more likely to participate in only Creating Art (20.7 percent vs. 11.1 percent) and neither Creating Art nor Attending Art (26.2 percent vs. 7.2 percent) than were those who had a college education.

- Participants with a college education were more likely than high school graduates or less-educated adults to participate in Creating Art of each type.

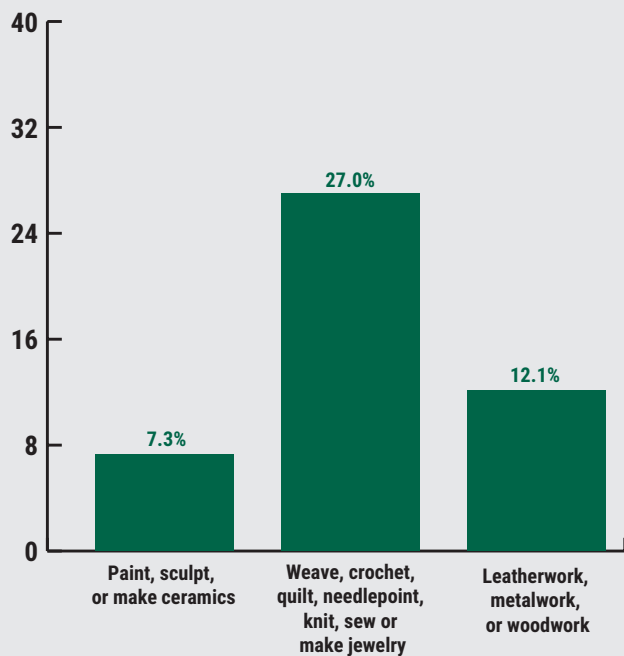
Marital Status

- Married older adults were more likely to participate in both Creating Art and Attending Art (54.4 percent vs. 40.2 percent of single older adults) or in only Attending Art (21.1 percent vs. 18.8 percent) than were unmarried respondents.
- Married older adults were less likely to participate in Creating Art (12.2 percent vs. 19.8 percent) or in neither Creating Art nor Attending Art (12.3 percent vs. 21.2 percent) than were respondents who were not married.
- Married older adults participated more frequently in the following Creating Art activities than did their single counterparts: singing or playing a musical instrument (20.1 percent of married older adults, compared with 17.9 percent of single older adults), dancing (25.1 percent vs. 23.1 percent), making woodwork, leatherwork, or metalwork (14.9 percent vs. 8.1 percent), and creating photography or filmmaking (16.0 percent vs. 8.5 percent). They also were more likely to read novels, short stories, poetry, or plays (60.7 percent) than were single older adults (53.4 percent).
- Single older adults participated more frequently than did married older adults in writing novels and short stories, poems, and plays (7.7 percent vs. 6.1 percent), weaving and knitting (28.2 percent vs. 26.1 percent), and painting (9.3 percent vs. 5.9 percent).
- A similar proportion of married and unmarried older adults acted in theater and film (1.3 percent vs. 0.8 percent).

“Creating Art” Activities

The majority of questions in the 2014 HRS Culture and the Arts module focused on older adults’ participation in Creating Art activities. These items included questions on older adults’ active participation in the visual arts; music; media arts; theater and film as an actor; photography, graphic design, and filmmaking; dance; and writing (*Table 2.0*). Approximately 34 percent of older adults reported participating in at least one Creating Art activity in 2014.

Figure 2.3. Percentage of Older Adults Who Participated in Creating Art, by Visual Arts Activity Type (2014).



Art Forms

As noted earlier, the HRS Culture and Arts module asked about older adults' participation in specific art forms only for the Creating Art questions. For this category, adults showed highest levels of participation in visual arts (39.5 percent), dancing (24.3 percent), and music (19.2 percent). Among the art forms that were exercised least often were writing stories, poetry, or plays (6.8 percent), and acting in theater or films (1.1 percent).

Visual Arts

Older adults responded to three different questions about the visual arts. Question-items covered (1) painting, sculpting, and making pottery or ceramics; (2) weaving, crocheting, quilting, or doing needlepoint, knitting, sewing, or jewelry-making; and (3) doing leatherwork, metalwork, or woodwork. Concerning these activities, the greater percentage of older adults (27.0 percent) reported weaving, crocheting, quilting, knitting, sewing, or jewelry-making (*Figure 2.3*).

As noted earlier, women generally engaged in Creating Art at higher rates than did men (*Figure 2.4*). In particular, weaving, crocheting, and knitting were also much more prevalent among women (43.3 percent) than among men (3.8 percent), while doing leatherwork, metalwork, or woodwork was much more prevalent among men (25.6 percent) than among women (2.6 percent).

Performing Arts

Approximately 19 percent of older adults sang or played a musical instrument in the past year. A slightly higher fraction, about 24 percent, engaged in dancing (*Figure 2.5*). The lowest levels of participation in Creating Art were reported for acting in theater and film (1.1 percent).

Music participation was more common for women (20.3 percent), racial/ethnic groups other than non-Hispanic white (22.9 percent), and those who were married (20.1 percent) (*Figure 2.6*). Indeed, dancing by other racial/ethnic groups than non-Hispanic white (35.4 percent) exceeded the participation rates of non-Hispanic whites (21.9 percent). Older adults with higher levels of education (28.6 percent) danced more frequently than did less educated people (*Figure 2.7*).

Creative Writing

Older adults' participation in writing was measured with one question. According to responses, 6.8 percent of older adults had written novels or short stories, poetry, or plays in the previous year.

Figure 2.4. Percentage of Older Adults Who Participated in Weaving, Crocheting, and Knitting, by Gender, Race/Ethnicity, Age, Education, and Marital Status (2014).

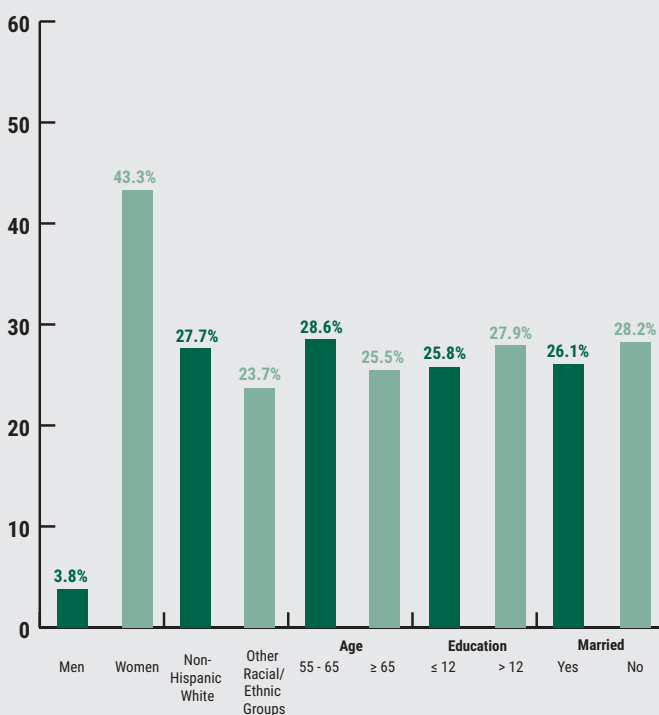


Figure 2.5. Percentage of Older Adults Who Participated in Creating Art, by Performing Arts Activity Type (2014).

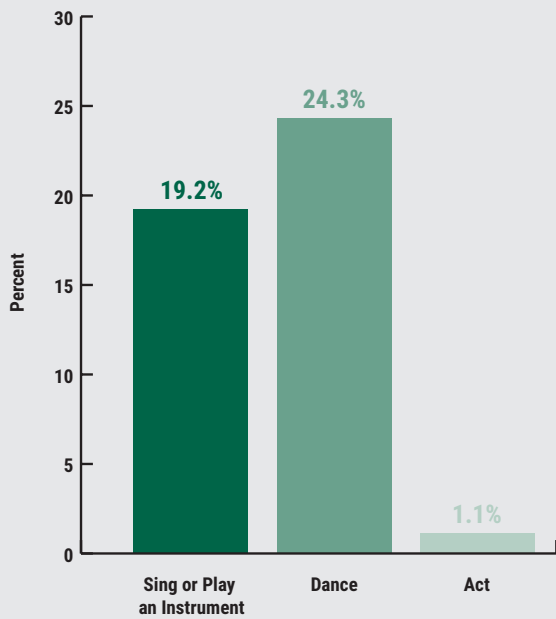


Figure 2.6. Percentage of Older Adults Who Participated in Music-Making, by Gender, Race/Ethnicity, Age, Education, and Marital Status (2014).

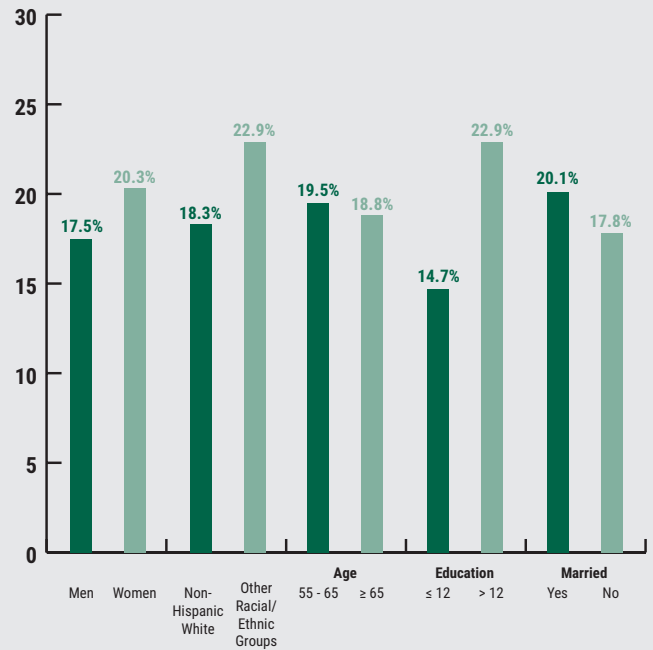


Figure 2.7. Percentage of Older Adults Who Participated in Dancing, by Gender, Race/Ethnicity, Age, Education, and Marital Status (2014).

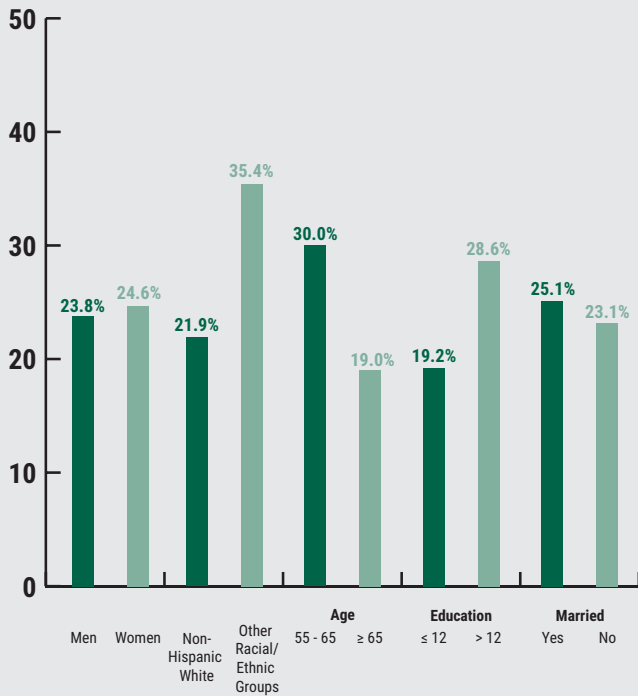


Figure 2.8. Percentage of Older Adults Who Participated in Creating Art through Media Arts, and by Gender, Race/Ethnicity, Age, Education, and Marital Status (2014).

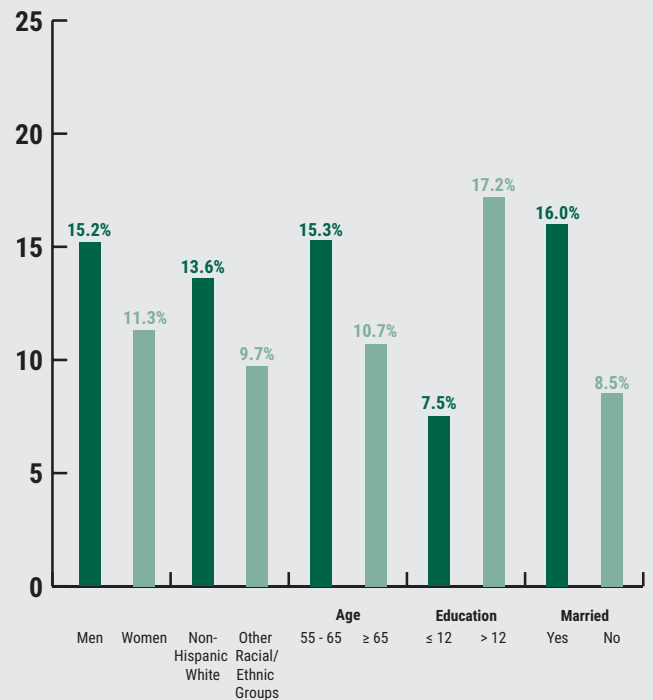


Figure 2.9. Percentage of Older Adults Who Participated during the Past 12 Months in Attending Art, by Gender, Race/Ethnicity, Age, Education, and Marital Status (2014).



Media Arts

Creativity via media arts ranked relatively low for older adults. Approximately 13 percent reported active engagement in photography, graphic design, and filmmaking. Additionally, men (15.2 percent), non-Hispanic whites (13.6 percent), adults aged 55 to 64 years old (15.3 percent), and married adults (16 percent) were more likely than were other subgroups to do these creative activities (Figure 2.8). College-educated respondents were more than twice as likely (17.2 percent) as less-educated adults (7.5 percent) to participate in media arts activities.

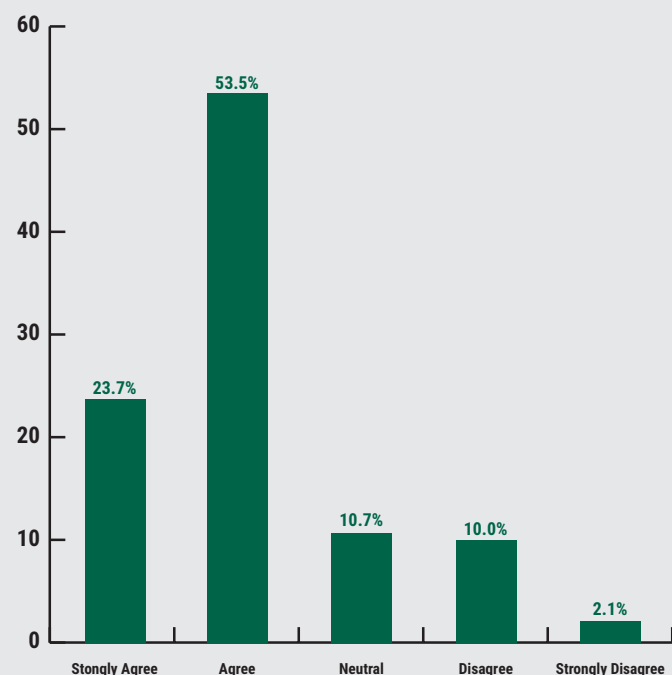
“Attending Art” Activities

In a single survey item, the 2014 HRS Culture and the Arts module asked older adults whether, in the past 12 months, they had attended one or more of the following types of events or activities: a movie, an art museum or gallery; an arts or crafts fair; or a live performance such as a concert, play, or live reading. A distinctive component of this HRS item is that it included movie-going as part of a larger question on attending live, performing arts events.³⁰

Overall, women were more likely (70.7 percent) than were men (65.8 percent) to participate in Attending Art activities. Adults with at least a high school education were much more likely to participate in Attending Art (81.8 percent) than were those with less education (53.2 percent). Additionally, adults aged 55-64 were more likely to participate (77.0 percent) than were adults 65 years and older (61.3 percent), a finding that may be attributed to better health, mobility, and overall accessibility to the arts (Figure 2.9).

Nearly 69 percent reported attending a movie, an art museum or gallery, an arts or crafts fair, or a live performance such as a concert, play, or live reading. About 94 percent of that group participated in Attending Art with others, while a small fraction (6.4 percent) went alone. Also, respondents who participated in Attending Arts did so mostly with their spouse (37.8 percent), or with friends (24.8 percent) or with children (16.7 percent), or with other relatives (14.0 percent). Only about 7 percent of those who participated in Attending Art did so with someone other than spouse, friends, children, or relatives.

Figure 2.10. Percentage of Older Adults Who Reported Appreciating the Arts (2014).



30 This method contrasts to the NEA’s Survey of Public Participation in the Arts (SPPA), which represents movie-going as a separate construct within arts participation.

Figure 2.11. Percentage of Older Adults Who Reported Having No Interest in the Arts (2014).

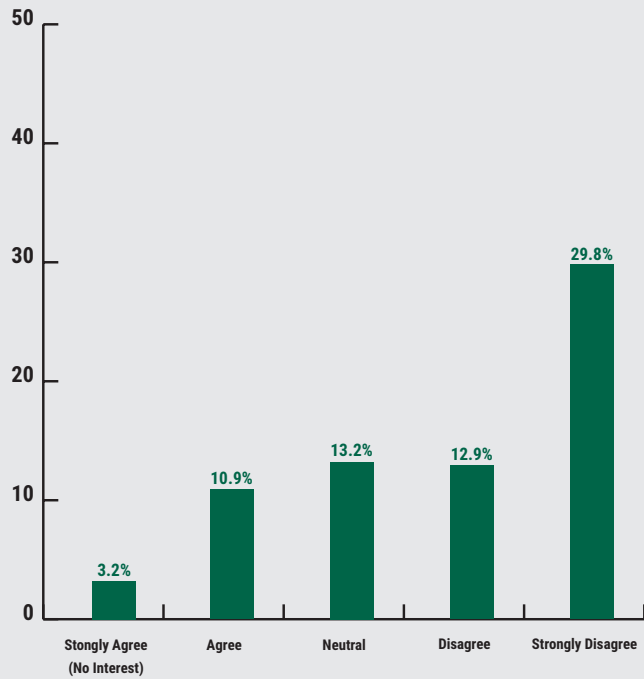


Figure 2.12. Percentage of Older Adults Who Agreed that the Arts Are Important (2014).

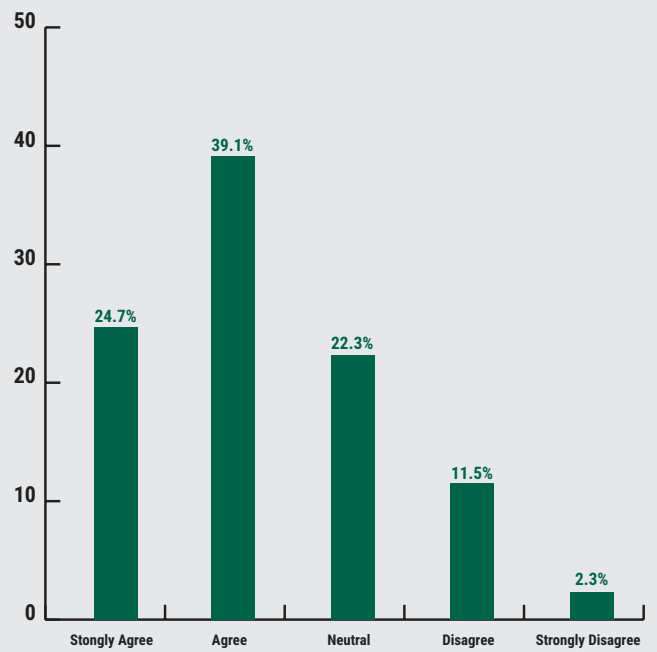


Figure 2.13. Percentage of Older Adults Who Reported Enjoying the Arts (2014).

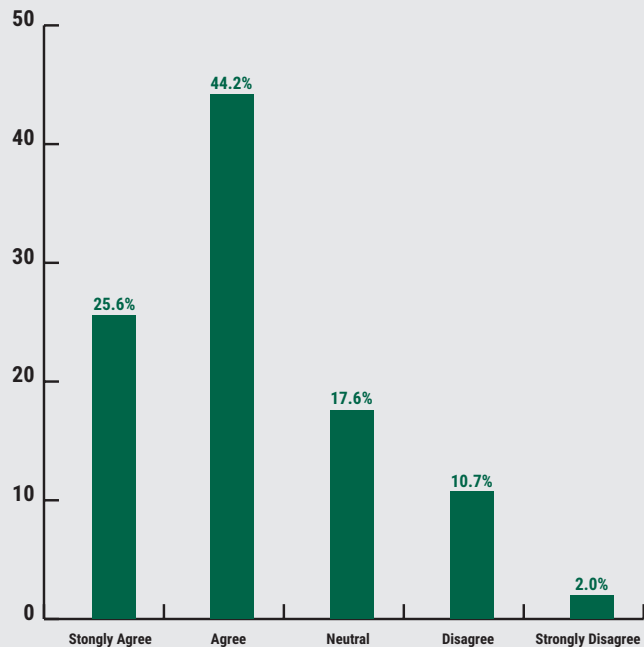


Figure 2.14. Percentage of Older Adults Who Expressed an Interest in Taking Lessons or Classes in the Arts (2014).

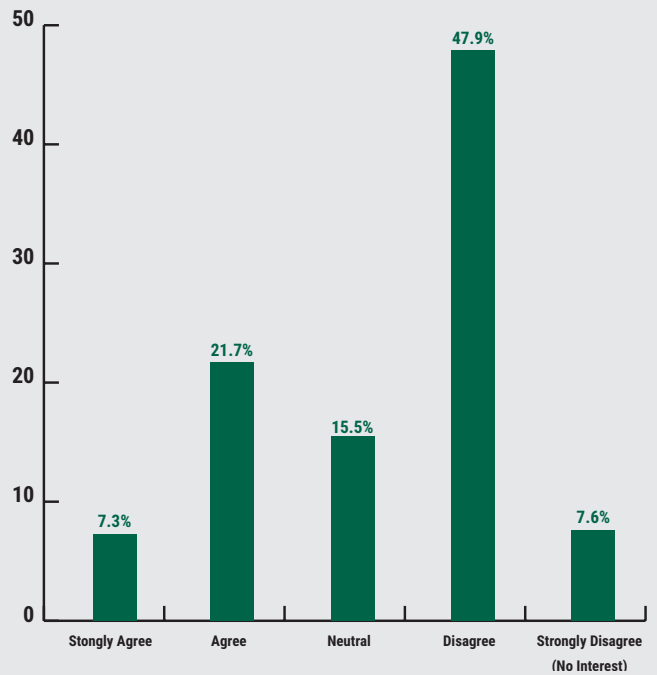
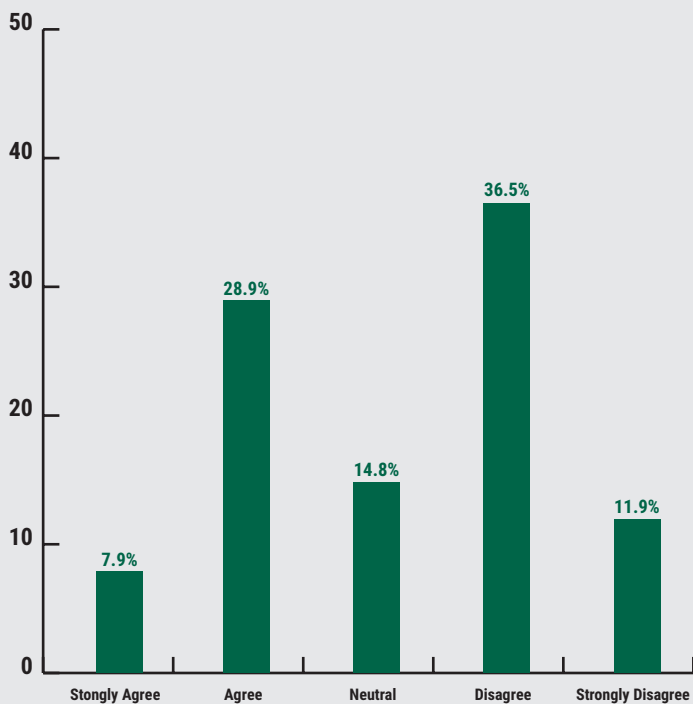


Figure 2.15. Percentage of Older Adults Who Reported Difficulty in Participating in the Arts (2014).



Older adults were also asked if they had read a novel, short story, poem, or play within the past 12 months, and if they had, then how many books they had read per month. A majority of participants, approximately 57 percent of older adults, reported reading novels, short stories, poetry or plays, with 50.3 percent reading one to five books a month, and 7.1 percent reporting having read six or more books per month.

Older Adults' Attitudes About the Arts

Older adults were also asked to report their levels of agreement with several attitudinal statements about the arts. Arts attitudes were asked on a five-point Likert scale ranging from strongly agree to strongly disagree. For the purpose of analysis, "strongly agree" and "agree" have been combined into one category, strongly disagree and disagree into a second category, and neither agree nor disagree into a third category. Overall, respondents reported favorable attitudes about the arts and about arts participation in general. Approximately 77 percent of older adults agreed they had a sense of appreciation for the arts (*Figure 2.10*), while only 14.1 percent reported no interest in the arts (*Figure 2.11*).

A substantial proportion of older adults (63.8 percent) affirmed the importance of the arts (*Figure 2.12*), while 69.8 percent reported that they enjoyed the arts (*Figure 2.13*).

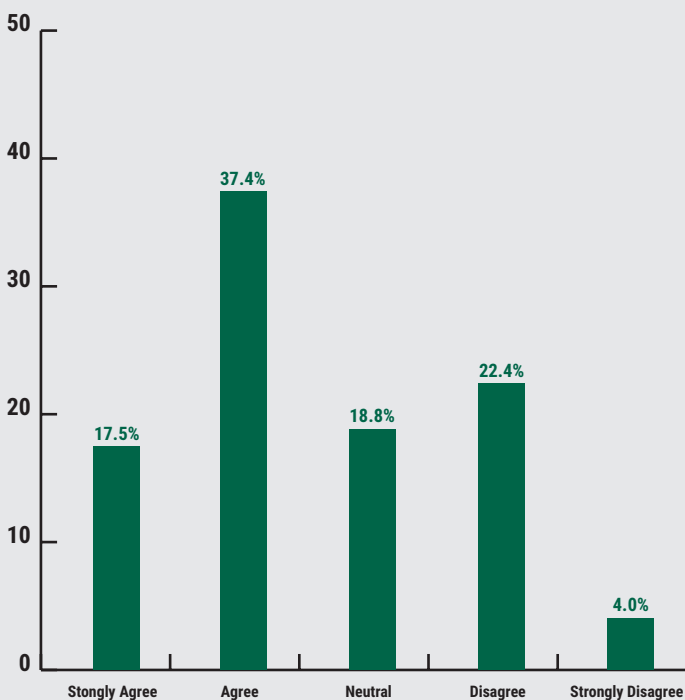
Interest in Developing Artistic Skill

Approximately 29 percent of older adults expressed an interest in taking lessons or classes in the arts (*Figure 2.14*), somewhat lower than might have been expected from the relatively high rates of arts appreciation.

Difficulty Participating in the Arts

Nearly 37 percent of older adults reported it was difficult to participate in the arts (*Figure 2.15*), a finding that was approximately the same as the reported rate in the NEA's *When Going Gets Tough* report, based on data from the 2012 wave of the General Social Survey. Additionally, the GSS had found that older adults who were living alone and in poor health said they were interested in attending arts events but were unable to do so. Collectively, these findings demonstrate the importance of promoting accessible ways of experiencing the arts for older adults.

Figure 2.16. Percentage of Older Adults Who Agreed that the Arts Support Active Engagement and Socialization (2014).



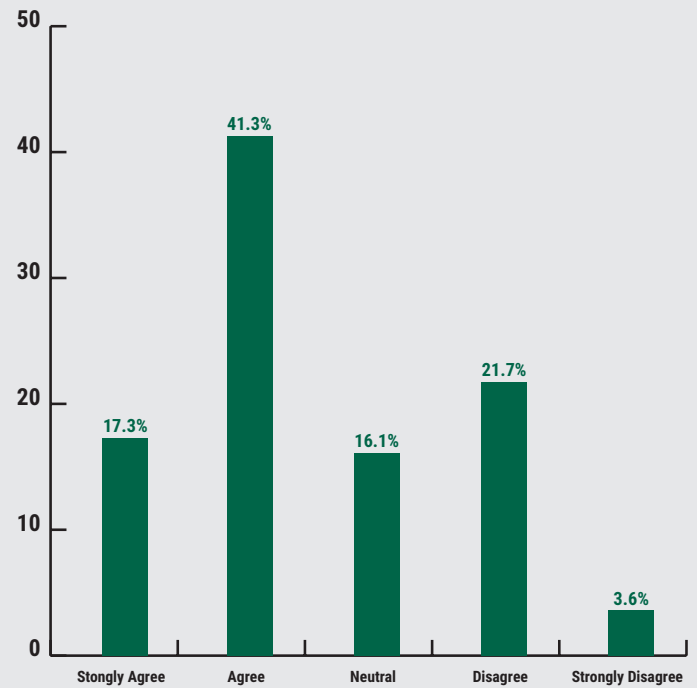
About 38 percent wanted to go to an Attending Art event but did not go. Of those who did not participate in Attending Art, 21.6 percent responded with “cost too much” and 21.2 percent “could not find the time” when asked “Why they didn’t go to the event or events?”

Personal and Social Engagement

It is also important to understand how the arts may support active engagement and socialization in later life, particularly when considering that social engagement is often associated with cognition.³¹ Nearly 55 percent of older adults reported that the arts helped them to stay active and engaged (*Figure 2.16*). Additionally, nearly 59 percent of older adults reported that the arts helped them to socialize with family and friends (*Figure 2.17*).

In the HRS, 93.7 percent of older adults who participated in Attending Arts activities attended with other people. Participants were more likely to participate in Attending Arts activities with their spouse or partner (37.8 percent) or with a friend (24.8 percent).

Figure 2.17. Percentage of Older Adults Who Agreed that the Arts Helped Them To Socialize with Family and Friends (2014).



31 Krueger, Wilson, Kamenetsky, Barnes, Bienias, & Bennett (2009).



Poet Gary Glazner working with participants of the Alzheimer's Poetry Project, which uses poetry recitation to trigger brain activity and help people suffering from memory loss. Photo by Michael Hagedorn

PART III: ARTS PARTICIPATION AND HEALTH OUTCOMES

This section explores how participation in Creating Art, Attending Art, or in doing both or neither, correspond with cross-sectional (2014) and retrospective (2002-2014) data about health outcomes.

Given the prevalence of poor cognitive health, functional limitations, and hypertension among older adults, the potential health benefits of arts participation for this cohort should interest anyone charged with designing or implementing prevention strategies.³² In this report, we focus on three

measurable outcome areas for older adults' health and well-being: cognitive health, physical health, and cardiovascular health.

Cognitive health was assessed by using a self-reported questionnaire on memory function, executive functioning, and global cognition. Physical health measurement relied on a self-reported questionnaire of limitations in instrumental activities of daily living (IADL). The cardiovascular health assessment was based on a self-reported questionnaire of whether individuals had hypertension or high blood pressure.

32 Castora-Binkley et al. (2010); Dileo et al. (2014).

Table 3.0. Demographic Characteristics and Health Outcomes (2014).

		Cognitive Function Mean (SE)	Functional Limitations (%)	Hypertension (%)
Age	All Adults (aged 55 and older)	0.54 (0.03)	30.0%	61.2%
	55-64	0.81 (0.04)	20.1%	53.6%
	65 and older	0.30 (0.03)	39.0%	67.9%
Gender	Male	0.43 (0.04)	27.6%	60.8%
	Female	0.62 (0.04)	31.7%	61.4%
Race/ Ethnicity	Non-Hispanic White	0.60 (0.03)	28.2%	58.6%
	Other groups	0.30 (0.05)	38.6%	72.8%
Education Level	High school or less	0.30 (0.04)	34.5%	69.3%
	More than high school	0.74 (0.04)	26.5%	54.7%
Marital Status	Married	0.64 (0.03)	24.6%	57.5%
	Single	0.40 (0.05)	37.8%	66.4%

This report examines the linkage between arts participation and positive health outcomes. It asks whether older adults who exhibited positive attitudes about the arts in 2014 had better cognitive, physical, and cardiovascular health outcomes that year. In addition, the report examines whether long-term patterns of change in cognitive health, functional limitations, and hypertension (from 2002-2014) offer strong potential for future testing in observational and randomized studies. Subgroup demographic characteristics under review include age (within a 55-years-and-older cohort), gender, race/ethnicity, education level, and marital status (*Table 3.0*).

Summary of Arts Participation and Health Outcomes

Cognitive Functioning and the Arts

Participating in *both* Creating Art and Attending Art, or *only* Attending Art, was positively associated with cognitive functioning among older adults aged 55 years and older.

- Older adults who engaged in both Creating Art and Attending Art activities in 2014 had higher cognition levels than did those who engaged in only Creating Art that year, or who neither created nor attended.
- The decline in cognition levels from 2002 to 2014 was notably slower for older adults who, in 2014, engaged in both Creating Art and Attending Art activities—in comparison with the rate of decline for older adults who did neither activity type or who did only Creating Art.
- Older adults who participated in only Attending Art had higher cognitive functioning than did those who participated in neither Creating Art nor Attending Art in 2014. Those who did only Attending Art (in 2014) also had lower rates of cognitive decline since 2002, compared with older adults who did only Creating Art or who did neither Creating Art nor Attending Art.

Cognitive Functioning and Arts-Related Attitudes

Identifying with positive statements about the arts was associated with a slower decline in cognitive functioning over time.

- Older adults who reported enjoying the arts, including arts classes or lessons—as well as older adults who expressed a general interest

in the arts—had higher levels of cognition than did older adults who had not reported sharing these values.

- Older adults who in 2014 responded positively to enjoying the arts, including lessons or classes about the arts, had a somewhat slower rate of decline in cognitive function since 2002, compared with other older adults.

Physical Functioning and the Arts

Participating in *both* Creating Art and Attending Art was associated with lower rates of limitations to physical function in daily living.

- Older adults who both created and attended art in 2014 had lower rates of limitations in instrumental activities of daily living that year than did older adults who participated in neither activity type.
- Older adults who participated in both Creating Art and Attending Art activities in 2014 experienced a slower increase in limitations in daily activity between 2002 and 2014, compared with older adults who did neither activity type.
- Respondents who participated in only Attending Art or only Creating Art in 2014 reported slower growth of limitations in daily physical activity between 2002 and 2014, compared with respondents who did neither Creating Art nor Attending Art in 2014.

Physical Functioning and Arts-Related Attitudes

Identifying with positive statements about the arts was associated with lower rates of limitations to physical function in daily living.

- A smaller proportion of older adults who reported enjoying the arts in 2014 reported any limitations in the instrumental activities of daily living that year, compared with older adults who did not agree with this statement.
- Older adults who did not like taking arts classes or lessons were more likely to report limitations in daily physical functioning in 2014 than were older adults who enjoyed those activities.
- Older adults who reported in 2014 that they did not enjoy the arts reported a sharper rise of limitations in daily physical functioning between 2002 and 2014 than did older adults who enjoyed the arts.

Hypertension and the Arts

Participating in both Attending and Creating Art activities, or only Attending Art, was associated negatively with self-reported hypertension.

- Older adults who in 2014 did both Creating Art and Attending Art activities—or who did Attending Art only—had lower rates of hypertension that year, compared with older adults who did only Creating Art or neither activity type.
- Older adults who participated in both Creating Art and Attending Art or in only Attending Art reported a sharper rise in hypertension between 2002 and 2014 compared with those who in 2014 participated in only Creating Art or in neither Creating Art nor Attending Art.

Hypertension and Arts-Related Attitudes

Identifying with positive statements about the arts was associated with lower hypertension rates.

- Older adults who reported enjoying the arts in 2014 had lower rates of hypertension than did older adults who did not share this view.
- Older adults who reported enjoying the arts showed slower rate of increase in hypertension between 2002 and 2014 than did those who in 2014 did not enjoy the arts.

Cognition and Arts Participation

Changes in Cognitive Functioning in 2014, Relative to Arts Participation That Year

Older adults (aged 55 years and older) who did both Creating Art and Attending Art activities demonstrated better cognition in 2014, compared with other groups. Those who participated only in Attending Art had slightly lower cognitive-function scores than older adults who did both activity types. Meanwhile, older adults who did only Creating Art had even lower scores in cognitive function, compared with older adults who did only Attending Art or who did both Creating Art and Attending Art. People who did not participate in the arts in any manner had the lowest cognitive function scores (*Figure 3.1*).

Indeed, cognitive-function test scores among older adults who participated in both activity types (Creating Art and Attending Art) was more than **seven-fold** higher than the scores of people who did neither activity type. Those who participated in only Creating Art showed slightly better cognition, but their scores were still

Figure 3.1 Average Standardized Cognitive Function of Older Adults (2002-2014), by Category of Arts Activity (2014).

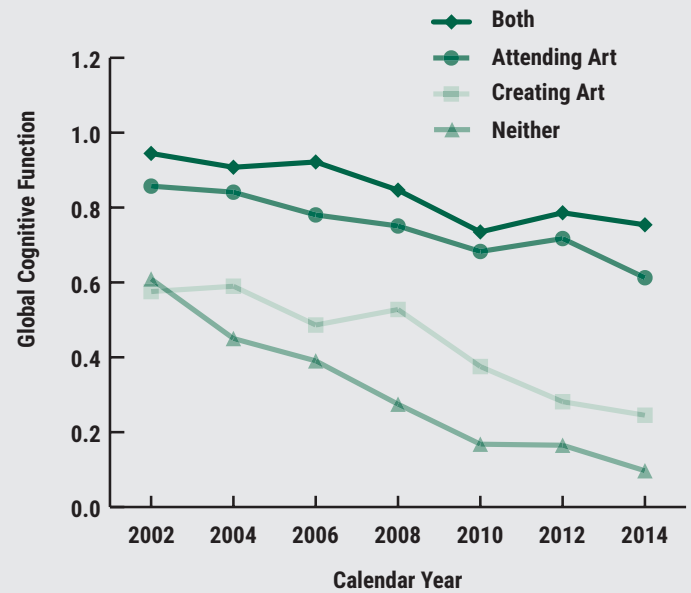


Figure 3.2. Average Standardized Cognitive Function and Participation of Older Adults (2002-2014), by Frequency of Arts Attendance (2014).

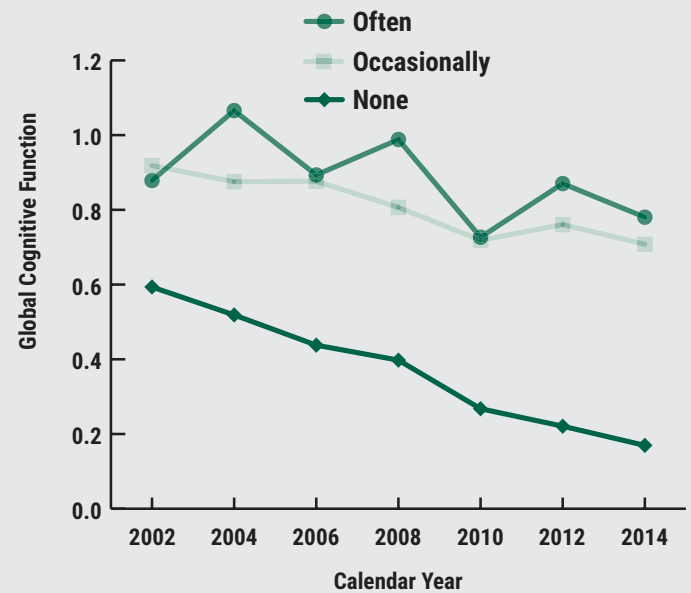
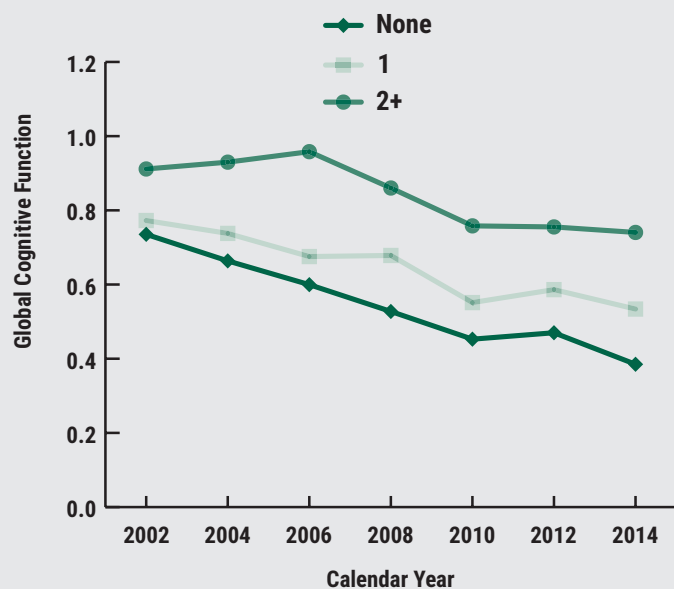


Figure 3.3. Average Standardized Cognitive Function of Older Adults (2002–2014), by Number of Creating Art Activities They Did (2014).



roughly three-fold lower than for older adults who did both activity types. Of interest, the cognitive scores of older adults who participated in only Attending Art was slightly lower than those of older adults who participated in both Creating Art and Attending Art.

The HRS also permits an analysis of the frequency of arts participation—for Attending Art and Creating Art—since the questionnaire asks about the approximate number of times that respondents engaged in those activities. This analysis shows that frequency of Attending Art is positively associated with cognition. Older adults who went to the events at least once a week (“often”), one to three times a month, or even less than once a month (“occasionally”) had higher cognition scores than did those who never attended any arts events in 2014 (Figure 3.2).

Frequency also played a role in the association between Creating Art and cognitive function. In 2014, cognitive function was higher among older adults who participated in three or more categories of Creating Art; it was lowest among older adults who had not engaged in Creating Art activities. Specifically, cognitive function increased with the number of Creating Art activities (Figure 3.3).

Changes in Cognitive Functioning from 2002 to 2014, Relative to Arts Participation in 2014

Older adults who did both Creating Art and Attending Art or who did only Attending Art had similar patterns of change in cognitive function from 2002 to 2014. Over the same period, older adults who did only Creating Art or who did neither Creating nor Attending Art also had a similar pattern of change in their cognitive function since 2002 (Figure 3.1). Both the only-Attending-Art and the both-Creating-and-Attending-Art subgroups had a higher composite cognitive function in their 2002 assessment than did older adults who did only Creating Art or who did neither activity type. Also, the decline in cognitive function since 2002 to 2014 was faster among those who did not attend any arts performances at all, compared with the rate of change for those who participated in only Attending Art activities.

Cognitive Functioning Relative to Attitudes about the Arts

In aggregate, older adults who agreed that they enjoyed arts participation had higher cognitive functioning in 2014 than did those who disagreed.³³

The rate of decline in cognitive function (since 2012) was slightly slower among older adults who strongly agreed or agreed about enjoying arts, compared with the rate decline for those who strongly disagreed or disagreed.³⁴

Older adults who in 2014 reported to “strongly agree” or “agree” with having difficulty participating in the arts had lower cognitive function, compared with those who strongly disagreed or disagreed, or who neither agreed or nor disagreed. Regarding cognitive function, there was no observable difference among those who strongly disagreed or disagreed about difficulty in participating in the arts, compared with those who neither agreed nor disagreed with that perspective.

³³ Based on a factor analysis, the “I enjoy the arts” question captures the most variation in the set of questions related to positive arts experience; hence, this question was chosen for its association with cognitive function. Additionally, the difference between those who, on the one hand, agreed or strongly agreed and, on the other hand, those who neither agreed nor disagreed was about 0.2 standard deviation units. However, there was a remarkable difference between those who agreed or strongly agreed and those who strongly disagreed or disagreed, a difference of over 0.6 standard deviation units.

³⁴ The difference in cognitive function for these two groups was about 0.4 standard deviation units in 2002, increasing to over 0.6 standard deviation units in 2014.

Physical Functioning and Arts Participation

Changes in Physical Functioning in 2014, Relative to Arts Participation That Year

In 2014, the proportion of older adults who reported any limitations in the instrumental activities of daily living was about 22.3 percent for those who participated in both Creating Art and Attending Art, 29.9 percent for those who participated in only Attending Art, 38.2 percent for those who participated in only Creating Art, and 45.8 percent for those who did neither activity type.

Older adults who frequently or even occasionally did Attending Art activities had lower reports of any functional limitations—by about 18.5 percent—than did those who never participated in Attending Art activities in 2014 (Figure 3.4).

The more active older adults were in Creating Art, the less likely they were to have limitations in their instrumental activities of daily living (Figure 3.5). In 2014, older adults who were involved in any creative arts activities had such limitations at rates ranging from 24.5 percent to 27.5 percent. However, older adults who did not participate in Creating Art activities had such limitations at a rate of around 37.0 percent.

Changes in Functional Limitations from 2002 to 2014, Relative to Arts Participation in 2014

In general, the proportion of older adults who reported any limitations in the instrumental activities of daily living increased by 6.9 percent between 2002 and 2014. Older adults who participated in both Creating Art and Attending Art, in only Attending Art, or in only Creating Art all reported slower growth of limitations to physical functioning, from 2002 to 2014, than did older adults who did no arts activities. Among those who attended arts events and performances occasionally, the change in those who reported functional limitations increased by 6.4 percent, compared to 10.7 percent in those who did not attend any arts activities. Older adults who did not participate in Creating Art activities also showed a substantial rise in functional limitations from 2002 to 2014, compared with those who did two or more Creating Art activities (11.0 percent vs. 4.1 percent).

Figure 3.4. Percentage of Older Adults with Limitations to Daily Physical Functioning (2002-2014), by Category of Arts Activity They Did (2014).

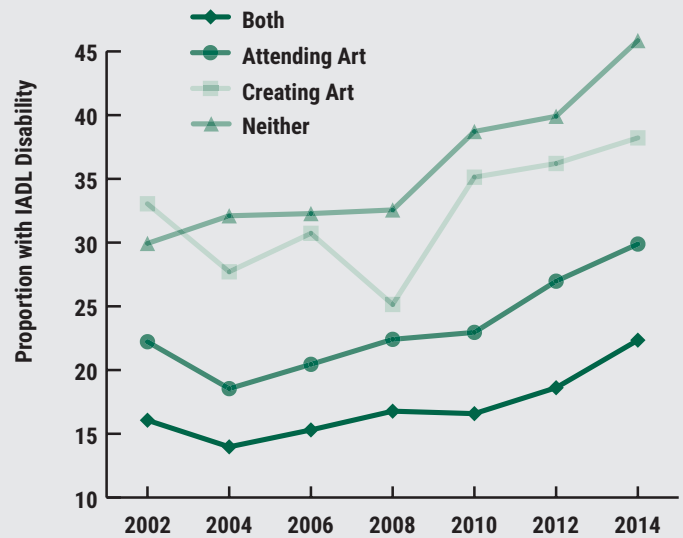


Figure 3.5. Percentage of Older Adults with Limitations to Daily Physical Functioning (2002-2014), by Number of Creating Art Activities They Did (2014).

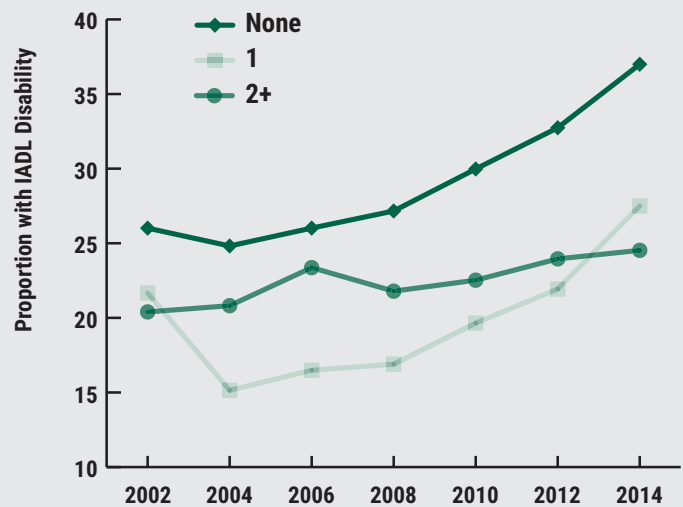
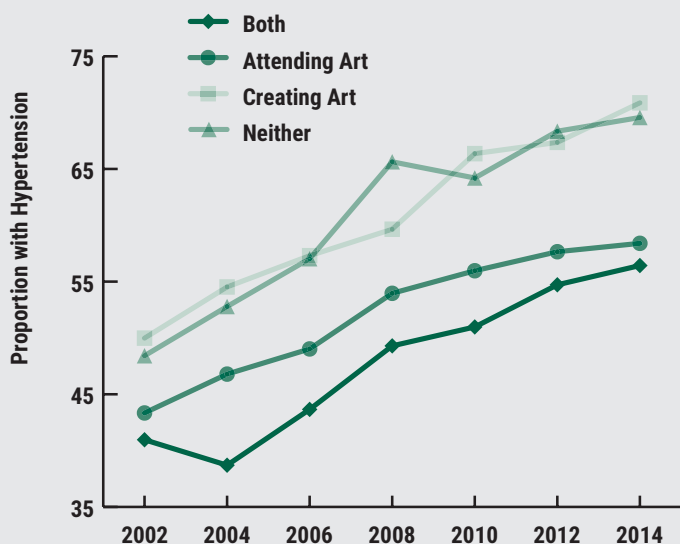


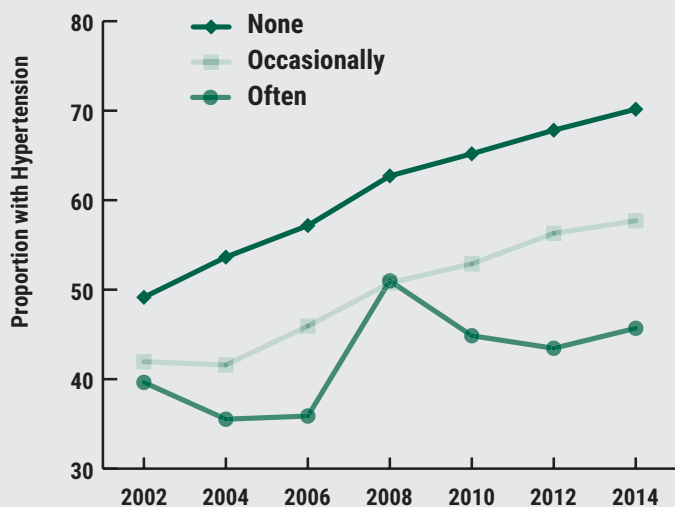
Figure 3.6. Percentage of Older Adults with Hypertension (2002-2014), by Category of Arts Activity They Did (2014).



Functional Limitations Relative to Attitudes about the Arts

Older adults who reported enjoying the arts in 2014 were less likely to report any functional limitations that year, compared with adults who did not have that experience (26.7 percent vs. 46.5 percent). Even older adults who said they neither agreed nor disagreed with the statement that they enjoyed the arts had lower rates of functional limitation than did adults who disagreed with that statement (29.8 percent vs. 46.5 percent). Regardless of their response to this value statement in 2014 (the question was not asked in previous years of the survey), older adults had similar rates of functional limitation in 2002, and their rates declined at a comparable level from 2002 to 2014. In 2014, older adults who reported having difficulty participating in the arts had a higher rate of functional limitation that year (40.3 percent), relative to older adults who either were neutral toward this statement or who disagreed with it outright (23.4 percent). Older adults who reported difficulty participating in the arts in 2014 also experienced higher rates of decline in functional limitations from 2002 to 2014 than did adults who did not have difficulty participating in the arts (15.0 percent vs. 1.0 percent).

Figure 3.7. Percentage of Older Adults with Hypertension (2002-2014), by Frequency of Arts Attendance (2014).



Hypertension and Arts Participation

In 2014, older adults who were not involved with any arts activities, or who were involved in only Creating Art, reported a 12.9 percent greater prevalence of hypertension than did older adults who participated in only Attending Art or in both Creating and Attending Art (*Figure 3.6*).

Frequency of activity also plays a role in the lower hypertension rates among arts attendees (*Figure 3.7*). In 2014, older adults who never attended any arts events and performances had higher rates of hypertension (a difference of 12.8 percent) when compared to adults who had attended even occasionally. In contrast, individuals who attended arts events and performances at least once a week ("often") had a 24.5 percent lower rate of hypertension than adults who never had attended.

In 2014, older adults who participated in only Creating Art activities also showed lower hypertension rates than did adults who participated in no Creating Art activities (*Figure 3.8*). Individuals

reporting no participation in Creating Art also had slightly higher hypertension than those who had participated in one or two categories of Creating Art activity. When they participated in two or more of these activities, moreover, they reported slightly lower rates of hypertension than those who had participated in no Creating Art activities (58.7 percent vs. 63.3 percent).

Changes in Hypertension from 2002 to 2014, Relative to Arts Participation in 2014

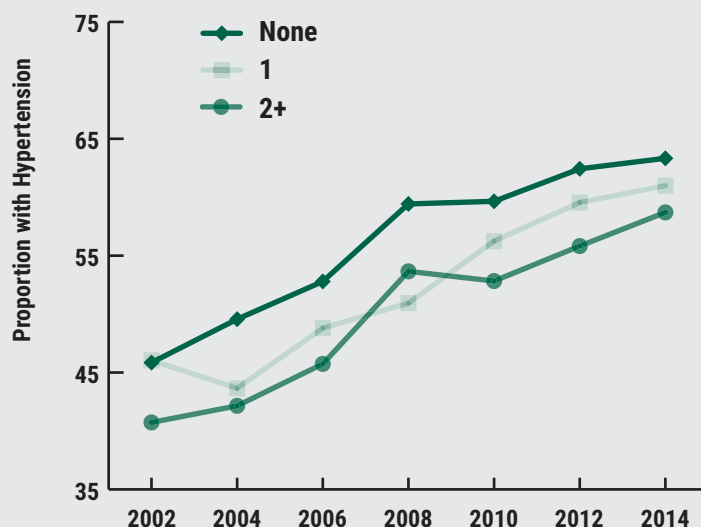
From 2002 to 2014, hypertension rates increased among older adults regardless of their arts participation. Still, the rate of increase was lower among older adults who in 2014 participated in only Attending Art than it was among older adults who did only Creating Art or who did neither activity type.

Among older adults who never attended any arts activities in 2014, the proportion with hypertension grew from about 49.1 percent in 2002 to 70.2 percent in 2014. Among those who occasionally attended arts activities, hypertension rates increased from 41.9 percent in 2002 to 57.7 percent in 2014. However, among older adults who attended arts events and performances more frequently, the rate of hypertension increased from 39.6 percent in 2002 to 45.6 percent in 2014. These findings suggest that older adults who reported attending arts events and performances also reported the lowest increases in the rate of hypertension. No clear change in hypertension rates between 2002 and 2014 were observed relative to the number of Creating Art activities that older adults experienced in 2014.

Hypertension Relative to Attitudes about the Arts

In 2014, there was a negative association between valuing the arts and self-reporting hypertension. About 74.1 percent of individuals who disagreed with enjoying the arts had hypertension, whereas about 60.4 percent of individuals who neither agreed nor disagreed reported hypertension in 2014, whereas 59.0 percent who strongly agreed or agreed with enjoying the arts also reported hypertension. The change was gradual among those who agreed with or were neutral toward the value statement, but there was a steeper increase in the hypertension rates among those who disagreed about the importance of arts.

Figure 3.8. Percentage of Older Adults with Hypertension (2002-2014), by Number of Creating Art Activities They Did (2014).



Older adults who in 2014 reported having no interest in the arts also had higher hypertension rates, by about 10.7 percent difference, compared to those who were neutral or who reported no interest in the arts. The patterns of change since 2002 were quite similar across the groups of people who reported interest in the arts.

The rate of hypertension was nearly identical in individuals who in 2014 gave different responses to the question regarding difficulty with arts participation. All those groups showed a consistent increase in hypertension from 2002 to 2014.



Mavis Fruge and Loretta Bourque working on a quilt as part of the Les Coudre Points events every Thursday at NUNU Arts and Culture Collective in Arnaudville, Louisiana, where people get together to work on quilts and speak French. Photo by Jacqueline Cochran

PART IV: CONCLUSIONS AND FUTURE RESEARCH DIRECTIONS

Participating in both Creating Art and Attending Art was positively associated with health and well-being outcomes for older adults in 2014. Older adults (aged 55 years and over) who participated in both Creating Art and Attending Art had higher levels of cognitive function, lower rates of limitation in instrumental activities of daily living, and lower rates of hypertension relative to other groups of older adults.

Apart from participating in the arts, being favorably disposed toward arts experiences was also associated with better health outcomes. In our retrospective analysis, we found that individuals who participated in both Creating Art and Attending Art had generally slower declines in cognition between 2002 and 2014; they also reported slower rates of growth for both hypertension and limitations to daily physical functioning. The relationship between arts participation and health outcomes was similar for older adults who, on the one hand, participated in only Attending Art and, on the other, for older adults who participated in both Creating and Attending Art. By contrast, the arts-health relationship for older adults who only did Creating Art was similar to that for older adults who did neither Creating nor Attending Art.

The relatively high rates of older adults who respond positively to arts experiences—and who report having created or attended art at least once in a 12-month period—suggest the importance of access to the arts for this subgroup. Further evidence from the Health and Retirement Study’s Culture and the Arts module attests to positive health and well-being outcomes associated with Creating Art and Attending Art. These findings can be used to generate hypotheses for future observational and randomized studies and for designing preventive strategies to offset the risk of cognitive and physical impairments in old age.³⁵

Despite study limitations (explained below), the 2014 HRS Culture and the Arts module is well-suited as an instrument for exploring the relationship of arts participation with physical, cognitive, and cardiovascular health, based on self-reported data from older adults. Future waves of the HRS will

allow researchers to analyze prospective outcomes associated with arts participation patterns and arts-related attitudes in 2014. Although the present report offers some support for a positive relationship among these different variables in 2014, more cross-sectional and longitudinal research is needed to understand whether and how the findings can inform policies, practices, and programs affecting older adults.

The HRS study population is a nationally representative sample of adults aged 55 years and older, and it includes self-reported health outcomes data collected for more than two decades. The Culture and the Arts module was introduced to the 2014 HRS data collection wave, giving researchers an opportunity to track self-reported responses to a series of questions and value statements about the arts and about arts participation in the previous 12 months. In particular, by differentiating between Creating Art and Attending Art activities, the HRS Culture and the Arts question-items permit using a multidimensional construct of arts participation. This specificity with reference to individual types of arts activities, especially for Creating Art, affords more scope than do many other survey instruments for assessing health-related outcomes of arts participation.

Limitations of Current Study

Even though the HRS is a longitudinal study of adults from a nationally representative sample, some components of the HRS study design, as well as the analytical approach used, limit the generalizability of the report’s findings. For example, the HRS Culture and the Arts module was fielded for the first time in 2014, reaching 10 percent of the entire HRS sample. Consequently, the stability of arts measures over time could not be assessed. In addition, the only known arts measure collected in the last decade of previous waves of the HRS relates to knitting.³⁶

35 Rajan, Barnes, Skarupski, de Leon, Wilson, & Evans (2015).

36 Beginning with the 2008 survey wave, the HRS Psycho-Social module included a question-item about making clothes, knitting, and embroidering.

Also, the associations in this report are descriptive and do not adjust for demographic, social, or other health measures, all of which should be examined in future studies. The analyses of health outcomes did not account for any demographic characteristics, such as education level, which has often been used as a proxy for income.

Because of the purely descriptive nature of this analysis, any positive associations observed in this report might change upon adjustment of other survey variables. Since only three health measures were evaluated—cognitive function, physical function, and hypertension—it is recommended that a larger set of health and well-being measures be studied in relation to arts attitudes and arts participation patterns.

Importantly, the cross-sectional and retrospective patterns of association make any arts-health association susceptible to “reverse causation”—that is, people who are healthier might engage more in arts activities than people who are less healthy.³⁷ As explained previously, the arts questions on the survey were asked only in 2014; in consequence, any retrospective analysis must be exploratory in nature. Future prospective and randomized, controlled studies are needed to more deeply characterize the associations reported here.

Recommendations for Future Research

A central theme from this report is that arts participation occurs on two dimensions, Creating Art and Attending Art. Importantly, older adults who do both Creating Art and Attending Art exhibit higher rates of cognitive functioning, lower rates of limitation to their physical functioning, and lower rates of hypertension when compared with older adults who participate in neither activity type or who only participate in only Creating Art or only Attending Art.

Much of the research on arts-based health interventions has focused on the therapeutic value of art-making.³⁸ In this report, participation in Creating Art activities in and of themselves do not suggest as large of an association with positive health outcomes as one would have expected, especially in comparison to Attending Art. The reasons for this pattern are largely unknown and they provide an exciting future research topic, especially given the relatively large volume of research about how

participating in Creating Art may support older adults and the aging process.³⁹ This report shows that adults with higher cognitive function participated in *both* Creating Art and Attending Art activities, a pattern similar to that for functional limitations and hypertension, while many adults with lower cognitive function did not participate in Creating Art or Attending Art.

In this report, only a descriptive view of health outcomes associated with participation in Creating Art and Attending Art was presented. A more comprehensive approach based on tests of specific scientific hypotheses using prospective and randomized studies might provide a better understanding of potential benefits of Creating Art and Attending Art activities for health outcomes. Additionally, the potential benefits concerning breadth (diversity of experiences) and intensity (frequency of participation in specific experiences) of participation in Creating Art and Attending Art activities is still unclear and can be further explored either via the HRS or other studies.

Participation in Attending Art activities also showed potential for several health benefits in older adults, as suggested by this report’s focus on cognitive health, physical health, and cardiovascular health. Admittedly, the link between participation in Attending Art activities and hypertension warrants further study using other measures of cardiovascular health than self-reported hypertension. Nevertheless, given the role of hypertension in cerebrovascular disease, cognitive and physical health, and mortality, any benefits of the arts to hypertension can translate to potential gains across several domains of health. These findings support the development of research programs that have the ability to perform translational research—from observational studies to interventions studies—that can examine whether arts experiences curb the likelihood of hypertension in old age.

Another important finding is that individuals who participate in only Attending Art seem to also have healthier profiles than those who participate only in Creating Art or who do not participate in the arts at all. Their profile is somewhat similar to individuals who participate in both Creating Art and Attending Art, which suggests a unique relationship between these two dimensions of arts participation.

37 Plassman, Williams, Burke, Holsinger, & Benjamin (2010).

38 Castora-Binkley et al. (2010); Phinney et al. (2014).

39 Castora-Binkley et al. (2010).

Beyond the health outcomes under review here, Creating Art and Attending Art activities may be associated with other psychological measures such as those involving depressive symptoms. In a preliminary analysis using HRS 2014 data, both Creating Art and Attending Art activities were associated with lower levels of depressive symptoms, relative to the rates of older adults who did neither Creating Art nor Attending Art activities. Similarly, the links between arts attitudes and depressive symptoms may be of interest for future studies. Along similar lines, earlier reports of expressive arts therapy suggest the significance of art activities in reducing depression and anxiety, and increasing self-worth.⁴⁰

As noted earlier, the relationship between arts and hypertension and other cardiovascular outcomes is in need of far greater study. A more detailed mechanistic study than is enabled by the HRS could help to locate salient aspects of the arts that are positively associated with hypertension, and it could explore pathways for a potential cause-effect relationship. In addition, it may be important to examine other sociodemographic and behavioral variables among people Creating Art and/or Attending Art, and how these diverse factors may qualify a relationship between the arts and hypertension: for example, it is well-known that hypertension risk is greater among those who are physically less active.⁴¹

Regardless of which health outcomes are studied, unique characteristics of Attending Art—as an activity—may affect the nature of the arts-and-health relationship. For example, participation in Attending Art is typically less physically demanding than Creating Art activities, which can require more active engagement and participation. Data from both the 2012 General Social Survey's Cultural module and the 2014 HRS Culture and the Arts module present older adults' continued interests in attending artistic events, even while overcoming the recognized physical barriers of old age. A complication affecting the present report is that the HRS Culture and the Arts module assessed Attending Art activities via a single question. Consequently, levels of participation in attending different types of arts activities could not be properly analyzed. It is impossible to tell whether the older adults who responded yes to the question about having attended

an arts event in the past 12 months were referring to movie-going, live performing arts attendance, museum-going, arts or craft fair attendance, only two of these activity types, three, or all four.

Furthermore, although they were not analyzed for the purpose of this report, the HRS Culture and the Arts module also collected responses to additional questions about Attending Art. For example, respondents who said they attended an event were also asked whether they attended an event by themselves or with others. If they had attended with others, then the survey asked whether the older adults had brought along spouses/partners, friends, children, other relatives, and/or other individuals. More than half of the sample (58.6 percent) reported agreeing that the arts helped them to socialize. Among those who Attended Art activities, 93.6 percent of respondents said that they had attended an event with someone else, showing a high level of socialization. Further analyses could probe the relationship between this socializing—and the types of people included in these arts experiences—and some of the health outcomes that form the focus of the present report.

40 Cohen (2006).

41 Paffenbarger, Jung, Leung, & Hyde (1991).



A resident at Adult Day Center in Waterford, Connecticut, displays her own hand-made puppet during the nonprofit Yorick's Productions tour of 20 senior centers in the northeast region. Photo by Dusan Petran

APPENDIX A: DESCRIPTION OF CULTURE AND THE ARTS MODULE, 2014

In 2014, the HRS included a Culture and the Arts module (Module 9) for a randomized subsample of the entire HRS cohort that was collected from 1,498 participants. Due to this randomization, the subsample can be scaled up to be representative of the entire population.

Attending Art activities were measured using the question, “In the past 12 months, did you go to a movie; an art museum or gallery; an arts or crafts fair; or a live performance, such as a concert, play, or reading?” with two possible responses, “Yes,” and “No.” All participants who responded to the question with “DK” (coded as did not know), or “RF” (coded as refused) were treated as missing responses. The frequency of Attending Art was assessed by “On average, how often did you go to these types of events in the past twelve months?” For the purposes of this report, these response options were reverse-coded from 1 through 4 with “less than once a month” as 1, and so on to “more than once a week” at 4.

Similar to the composite Attending Art activities measures, Creating Art activities were summarized as a composite of any HRS participants who positively responded to engaging in any of the following arts activities—singing, dancing, act, reading, writing, making art, painting, and taking photos. All participants who responded to these questions with “DK” or “RF” were coded as missing responses. Using all the non-missing responses for Creating Art questions, a composite measure was created for whether or not the HRS participants engaged in Creating Art activities. A summary score representing total number of Creating Art activities in which the respondents had engaged was also created. All non-missing data were used to create a score from 0 to 8. An individual score of 0 denoted no active arts participation, whereas a score of 8 denoted a high level of Creating Art participation. Since very few responses involved more than three Creating Art activities per individual per year, we counted three frequencies: 0, 1, and 2 or more.

Eight questions about attitudes toward the importance of the arts, appreciation of the arts, and socialization through the arts were also collected.

Each question had five responses: “Strongly Agree,” “Agree,” “Neither Agree or Disagree,” “Disagree,” or “Strongly Disagree”. For the purpose of this report, two responses (“Strongly Agree” or “Agree”) were coded as “Agree.” “Neither Agree nor Disagree” was coded as “Neutral,” and “Strongly Disagree” or “Disagree” was coded as “Disagree.”



Baba David Coleman entertains the audience at the annual Audubon Arts on the Edge celebration in New Haven, Connecticut, supported by the Arts Council of Greater New Haven. Photo by Harold Shapiro

APPENDIX B: DESCRIPTION OF THE HRS AND THE HRS MODULES

The HRS sample is comprised of six cohorts—HRS, AHEAD, CODA, WAR BABY, EARLY BABY BOOMER, and MIDDLE BABY BOOMER. The first HRS sample was based on birth cohorts between 1931 and 1941 and interviewed in 1992.⁴² Residents, spouses, or partners at the initial interview were followed every two years thereafter.

The HRS used a mixture of face-to-face interviews and telephone interviews that posed several methodological complexities for assessment of cognitive, physical, and psychological measures, as well as social environments. For respondents who had physical or cognitive problems, the HRS used proxy reports, which makes the survey design complex and difficult to use. The questions themselves have changed over the years, with the initial HRS sample asking only about self-rated memory, memory compared to two years ago, and immediate and delayed recall tests that measure memory functioning. Since 2002, tests on executive function were run on the HRS sample: backward counts, word recognitions, and general questions of orientation and functioning. HRS cognition data was also imputed for missing data and proxy reports used to estimate self-report scores.⁴³

Cognitive Functioning

Cognitive function was evaluated using a battery of three tests from Module D with two tests of episodic memory (immediate and delayed recall tests), one test of perceptual speed, a component of executive function (Symbol Digits Modalities Test), and one test of general orientation and global cognition (Mini-Mental State Examination) from 2002 to 2014.⁴⁴ The three tests were combined into one composite standardized global cognitive measure by averaging the three tests after centering and scaling each to their baseline mean and standard deviation. A participant whose composite performance matches that of the average score from 2002 had a composite cognitive score of 0. Participants with worse cognitive function had scores below 0 and those with better function had scores above 0.

42 Heeringa & Connor (1995).

43 Fisher, Halimah, Willard, & Weir (2011).

44 Ofstedal, Fisher, & Herzog (2005).

Limitations to Physical Functioning

The HRS study included two widely used self-reported measures of self-care tasks between 2002 and 2014 from Module G. Since activities of daily living (ADL) limitations questions were asked to only half of the eligible participants, these items were excluded from the present analysis. The instrumental activities of daily living (IADL) focused on the ability to perform seven household tasks: using the phone, shopping for groceries, preparing meals, housekeeping, laundering, taking medication, and managing finances. Responses contained five choices: “No difficulty at all,” “A little difficult,” “Some difficulty,” “A lot of difficulty,” and “Just unable to do it.” If participants could perform the activity with “No difficulty at all,” then questions were coded as “0” and all other choices were coded as “1.” For the purpose of this report, an individual who reported limitations in one or more items was coded as functionally limited. A respondent with a functional limitation had either at least “a little difficulty” with an IADL activity. Respondents without a functional limitation had “no difficulty at all” for all IADL activities.

Hypertension

Self-reported hypertension data was collected in HRS Module C for Physical Health from the 2002 wave.⁴⁵ Hypertension was evaluated using the question, “Has a doctor ever told you that you have high blood pressure or hypertension?” The question had four different responses—“Yes,” “Disputes previous wave record, but now has condition,” “Disputes previous wave record, does not have condition,” and “No.” Participants who responded as “Yes” or “Disputes previous wave record, but now has condition” were coded as participants with hypertension, and participants who responded as “No” or “Disputes previous wave record, does not have condition” were coded as not having hypertension. We estimated the percentage of adults with various arts profiles who reported having hypertension.

45 Crimmins, Guyer, Langa, Ofstedal, Wallace, & Weir (2008).



A gallery opening on the Curley School campus in Ajo, Arizona. Photo by Jewel Clearwater

APPENDIX C: COMPARISONS TO THE 2012 SPPA AND THE 2012 GSS

In discussions of older adults' arts participation patterns and arts-related attitudes, this report avails not only of the HRS Culture and the Arts module, but also of the National Endowment for the Arts' prior reports from the 2012 Survey of Public Participation in the Arts (SPPA) and the Cultural module from the 2012 General Social Survey (GSS).

Comparisons to the SPPA Data

To understand participation in Attending Art activities, the SPPA asked adults to report on participation in art museum or gallery visits as well as their attendance at various kinds of performing arts events, including art fairs and festivals, classical music, jazz, salsa music, opera, musicals, and dance events.⁴⁶

The GSS asked adults questions about both arts participation and their attitudes toward arts participation. Unlike the SPPA, which named a series of specific arts activity types, the GSS limited its attendance-related question to the following activities: visiting an art museum or gallery; and attending a music, dance, or theater performance. The differences in the question-wording may have accounted for different proportions of U.S. adults aged 55 years and older having reported attending an arts event in the previous 12 months. The composite attendance rate for the SPPA was 37 percent of older adults; for the GSS, it was 45 percent.

The HRS Culture and the Arts sample was asked an even broader question: respondents were asked about Attending Art with all activities grouped together into a single question—and with movie-going included. Therefore, the number of older adults who, according to the HRS, attended an arts event (including a movie) at least once in the previous year accounted for the highest attendance rate of older adults in all three surveys: 68.7 percent.

Comparisons to GSS Data on Barriers to Attending Art

A novel component of the General Social Survey (GSS) was that data were collected on the percentage of U.S. adults who were interested in attending an arts event or performance but who did not do so.⁴⁷

When considering the issues faced by older adults due to physical disability, the HRS analysis finds that 36.8 percent older adults reported that it was difficult to participate in the arts. Similarly, in GSS approximately 43 percent reported wanting to attend an art exhibit, and 33 percent reported wanting to attend a performance, but were not able to attend because it was difficult to get there or because of a disability that they had.

The GSS report also addressed adults' interest in both the visual and performing arts. Of adults aged 55 years and older who attended a visual or performing arts event (movies not included), nearly 83 percent said their motivation was primarily appreciation and loyalty to the arts in general. Similarly, the HRS Culture and the Arts sample shows that 85.9 percent of older adults reported having an interest in the arts and in participating in the arts.

The GSS also tagged U.S. adults aged 55 and older who were interested in attending arts events and performances but who did not attend due to poor physical health. The survey found that 30 percent of older adults with persistent poor health still attended visual and/or performing arts events, while the HRS found that about 36.8 percent of older adults found it difficult to participate in the arts in general.

46 National Endowment for the Arts (2013a).

47 National Endowment for the Arts (2015).



The Racine Art Museum's SPARK! program provides arts activities for older adults with memory loss in Racine, Wisconsin. Photo courtesy of Racine Art Museum

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400 7th Street, SW
Washington, DC 20506
202-682-5400
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