

PROJECT TITLE: *The Creativity and Aging Study*  
The Impact of Professionally Conducted Cultural Programs on Older Adults  
*Final Report: April 2006*

**Executive Summary**

In 2001, the National Endowment for the Arts developed a cooperative agreement with The George Washington University to conduct a multisite national study with the aim of measuring the impact of professionally conducted community based cultural programs on the general health, mental health, and social activities of older persons, age 65 and older. Referred to as the *Creativity and Aging Study*, the project's formal title is "The Impact of Professionally Conducted Cultural Programs on Older Adults". *No previous study of this nature using an experimental design and a control group had been carried out.*

The study takes place in three different sites across the country—the metro Washington, DC area; Brooklyn; and San Francisco. Each site involves two groups—(1) the Intervention Group, comprised of older individuals involved in a weekly participatory art program, and (2) those involved in a Control Group, comprised of individuals involved in their ongoing activities as usual. Each site recruited at least 100 older persons—50 participants in the Intervention Group and Control Group alike. The overall study has had 300 participants—150 in the Intervention Groups, 150 in the Control Groups. The average age in all three sites, Intervention and Control Groups alike, was approximately 80 years of age. The age range has been 65-103 years. Approximately 30 percent of the participants reflect racial and ethnic minorities.

The groups were very well matched in level of functioning at the start of study, with very similar physical health, mental health, and level of activity profiles. They were all interviewed three times by research assistants—(1) at the start of the study to establish a baseline; (2) a year later; and finally (3) two years after the baseline assessment.

Results reveal strikingly positive differences in the intervention group (those involved in intensive participatory art programs) as compared to a control group not involved in intensive cultural programs. Compared to the Control Group, those involved in the weekly participatory art programs, at the one and two year follow-up assessments, reported: (A) better health, fewer doctor visits, and less medication usage; (B) more positive responses on the mental health measures; (C) more involvement in overall activities.

Since the study has collected so much rich data, analyses—especially secondary data analyses—are expected to go on throughout 2007. There is considerable interest on the parts of graduate students to assist in the analyses of the secondary data.

In conclusion, these results point to powerful positive intervention effects of these community-based art programs run by professional artists. *They point to true health promotion and disease prevention effects.* In that they also show stabilization and actual increase in community-based activities in general among those in the cultural programs, they reveal a positive impact on maintaining independence and on reducing dependency. *This latter point demonstrates that these community-based cultural programs for older adults appear to be reducing risk factors that drive the need for long-term care.*

-----

## **SPONSORS:**

- *National Endowment For The Arts (NEA)–(Lead Sponsor)*
- Center for Mental Health Services, SAMHSA, DHHS
  - National Institute of Mental Health (NIMH), NIH
    - AARP/National Retired Teachers Association
    - Stella and Charles Guttman Foundation, NYC
    - International Foundation for Music Research

-----

**Primary Investigator:** Gene D. Cohen, M.D., Ph.D.  
**Coordinating Site:** The Center on Aging, Health & Humanities,  
The George Washington University (GW)  
*The study is administered through a cooperative agreement  
of the National Endowment for the Arts with GW*

-----

## **PARTICIPATING SITES:**

Elders Share the Arts (ESTA), Brooklyn, New York  
*Project Director:* Susan Perlstein

-----

Center for Elders and Youth in the Arts (CEYA)  
Institute on Aging, San Francisco, California  
*Project Director:* Jeff Chapline, MFA

-----

The Levine School of Music, Washington, DC  
*Project Director:* Jeanne Kelly

---

---

## **Overview of Study in Brief**

In 2001, the National Endowment for the Arts developed a cooperative agreement with The George Washington University to conduct a multisite national study with the aim of measuring the impact of professionally conducted community based cultural programs on the general health, mental health, and social activities of older persons, age 65 and older. Referred to as the *Creativity and Aging Study*, the project's formal title is "The Impact of Professionally Conducted Cultural Programs on Older Adults". *No previous study of this nature using an experimental design and a control group had been carried out.* Results reveal strikingly positive differences in the intervention group (those involved in intensive participatory art programs) as compared to a control group not involved in intensive cultural programs.

## **Objective of Study**

The objective of this project has been to evaluate the effects relevant to general health, mental health, overall functioning, and sense of well being in older persons caused by active participation in cultural programs provided by professional artists involved in visual and literary arts, music, and other cultural

domains. These programs draw upon a range of art and cultural disciplines, such as painting, pottery, dance, music, poetry, drama, material culture, and oral histories in a creative context.

## **Historical Context Of Study**

We are at the second major turning point in the contemporary focus on aging—that being looking at potential beyond problems. This focus on potential has profound possibilities for advancing health maintenance, health promotion, and disease prevention efforts. Societal interest in potential in later life is soaring, and it is in this context that a project studying how cultural programs affect older persons could not be more timely.

## **Theoretical Background for the Study**

The theoretical background for this study builds upon two major bodies of gerontologic research: (1) Sense of Control and (2) Social Engagement. Studies on aging show that when older persons experience a sense of control—e.g., a sense of mastery in what they are doing—positive health outcomes are observed. Similarly, when older individuals are in situations with meaningful social engagement with others, positive health outcomes are also observed. Biological studies reveal the involvement of mind-immune system pathways playing a protective role here, as described in research on psychoneuroimmunology. In this study, both of these dimensions—individual sense of control and social engagement—are combined. Each time one attends an art class, he or she experiences a renewed sense of control—ongoing individual mastery. Since all of the art programs involve participation and interpersonal interaction with others, social engagement is high.

## **Study Design In Brief**

The study was initiated in the fall of 2001. To be eligible for the intervention (art) and control groups, one needed to be 65 years of age or older and generally living independently at the start of the study. The intervention group participants were all involved in intensive community-based art programs, conducted by professional artists, meeting weekly for a period of approximately 9 months a year for two years, with additional time for concerts, exhibitions, and the like. Time was also spent between sessions on practicing and ongoing artistic work. The control group was actively involved in a range of community activities, but not in intensive art programs conducted by professional artists.

Both the intervention and control groups, at all three sites, had an average age of approximately 80 at the start of the study. The age range was 65-100. The intervention and control groups each had 150 participants, for a total of 300 in the study as a whole. Approximately 30% of the subjects represented racial and ethnic minorities. Baseline measures obtained via face-to-face administered questionnaires, in comparing both groups, were very similar at the start of the study. Measures were then repeated yearly for two years.

Measures were obtained through five questionnaires in three domains of functioning:

1. *General Health Assessment*, assessing health and problems across the systems of the body, medication usage, and health utilization data (e.g., doctor visits).
2. *Mental Health Assessment*, utilizing (A) The Geriatric Depression Scale (Short-Form); (B) The UCLA Loneliness Scale; (C) The Philadelphia Geriatric Center Morale Scale.
3. *Social Functioning Assessment*, utilizing a detailed inventory of the subjects' activities, with

attention to the nature of the activities and their frequency and duration.

## **Perspective on Measures of Success**

Before listing findings, one should consider an important perspective that persons in the field of aging would point out regarding expectations around results from this study. Given that the average age of the subjects was around 80—*greater than life expectancy* in the U.S.—clinicians and researchers alike would generally consider interventions in this age group successful, in terms of positive health and social functioning effects, if there was *less decline* than expected over time in the intervention group as compared to control group.

The significance of the art programs is that they foster sustained involvement because of their beauty and productivity. They keep the participants involved week after week, compounding positive effects being achieved. Many general activities and physical exercises do not have this high engaging, thereby sustaining, quality.

## **Results**

**NOTE:** This study had a staggered start, beginning with the Chorale in Washington, DC in September 2001, followed by Art Groups in New York City, and then in San Francisco, along with Control Groups in all three sites. Data from all three sites are still being analyzed, with secondary analyses continuing into 2007. Results follow:

### **Physical Health and Health Services Utilization—Findings**

#### *Washington, DC Area Site*

- **Overall Health:** After a year, those participating in the cultural program reported an increase in overall health, while those in the control group reported a decline. After two years, those in the cultural program essentially reported stabilization in overall health, while those in the control group report a decline.
- **Doctor Visits:** Those in the control group reported a greater increase in the number of doctor visits than those in the cultural program.
- **Prescription Medication Usage:** Those in the control group reported a greater increase in the number of prescription medications utilized than those in the cultural program.
- **Over-The-Counter Medication Usage:** Those in the control group reported a greater increase in the number of over-the-counter medications utilized than those in the cultural program.
- **Falls:** Those participating in the cultural program reported a decrease in falls, while those in the control group reported an increase.

#### *New York City Site*

- **Description of Health:** After a year, both those in the cultural programs and the control reported better health, but the improvement was greater in the cultural programs.
- **Number of Doctor Visits:** From year 1 to year 2, both the cultural groups and the control group

reported a decrease in the number of doctor visits, but the reduction was significantly greater among those in the cultural programs.

- **Medication Usage:** From year 1 to year 2, trend data revealed a slightly greater increase in medication utilization among the control group as compared to the cultural programs.

### *San Francisco Site*

- **Description of Health:** After a year, participants in the cultural programs reported an increase in their overall health, while those in the control group reported a decline.
- **Number of Doctor Visits:** After a year, participants in both the cultural programs and the control group reported a decline in doctor visits, but those in the cultural programs reported a greater decline.
- **Medication Usage:** After a year, those in the cultural programs reported a decline in medication usage, while those in the control group reported an increase.
- **Falls:** After a year, participants in both the cultural groups and the control group reported a decline in falls, but the reduction was greater among those in the cultural programs.

## **Mental Health—Findings**

### *Washington, DC Area Site*

- **Morale:** Participation in the cultural programs had a more positive impact on morale than being a part of the control group
- **Depression:** Over a two-year period, those in the cultural programs improved on the depression assessment, while those in the control group did less well.
- **Loneliness:** Data on participants in both the cultural program and the control group revealed a trend toward improvement.

### *New York City Site*

- **Morale:** Trend data suggest that participation in the cultural programs had a slightly more positive impact on morale than being in the the control group.

### *San Francisco Site*

- **Morale:** Trend data suggest an improvement in morale among those participating in cultural programs, with a decrease among those in the control group.
- **Depression:** Trend data suggest that participation in the cultural programs had a more positive impact on depression than being a part of the control group.

-----

**NOTE:** Across groups, qualitative, descriptive accounts by staff depict more a more positive impact on the mental health measures among those participating in the cultural programs as opposed to those in the control group.

## **Involvement in Social and General Activities—Findings**

### ***Washington, DC Area Site***

- Over a two-year period those participating in the cultural program reported an *increase* in the total number of activities they were involved with, while those in the control group reported a *reduction*.

### ***New York City Site***

- From Year-1 to Year-2 of the study, those in the cultural programs reported a *significantly greater increase* in the overall number of activities they were involved with as compared to the control group.

### ***San Francisco Site***

- Trend data point to those in the cultural programs reporting a greater increase in the overall number of activities they were involved with as compared to the control group.

## **Conclusions From Results**

**NOTE:** What is remarkable in this study is that after just a year into the study the *cultural groups*, in contrast to the *control groups*, were showing areas of actual stabilization and improvement apart from decline—despite an average age which is greater than life expectancy. This pattern then continued throughout year two of the study. These results point to powerful positive intervention effects of these community-based art programs run by professional artists. *They point to true health promotion and disease prevention effects.* In that they also show stabilization and actual increase in community-based activities in general among those in the cultural programs, they reveal a positive impact on maintaining independence and on reducing dependency. *This latter point demonstrates that these community-based cultural programs for older adults appear to be reducing risk factors that drive the need for long-term care.*

## **Next Steps**

Due to the staggered start among the three research sites, analyses (primary and secondary) are still in progress. Since the study has collected so much rich data, secondary data analyses are expected to go on throughout 2007. There is considerable interest on the parts of graduate students to assist in the analyses of the secondary data.

## **Dissemination of Results to Date**

### ***Publications***

As of April 2006, there have been three publications of the initial results of the study, with two others pending.

1. In the new book of Dr. Gene Cohen, The Primary Investigator and Project Director of the study: Cohen, G. D. (2006). *The Mature Mind: The Positive Power of the Aging Brain*. New York: Basic Books.

2. In the following publication (“The Older Learner”) of the American Society on Aging: Cohen, G. D. (2005). National study documents benefits of creativity programs for older adults. *The Older Learner*, 13(2): 1, 6.

3. The initial results, presented at the April 16, 2004 Annual meeting of the American Society on

Aging, published for public access on the Website of George Washington University's Center on Aging, Health & Humanities: [http://www.gwumc.edu/cahh/rsch/nea\\_study.htm](http://www.gwumc.edu/cahh/rsch/nea_study.htm)

4. Presently, a major publication on the study is anticipated by June of 2006 in “Generations”, a journal of the American Society on Aging.

5. Presently, a major publication is in process, having been submitted to “The Gerontologist” at The Gerontologic Society of America.

6. In a series of new publications that will be appearing throughout 2006-2008 as additional data analyses—especially secondary data—are completed.

### ***Selected Presentations at Scientific, Professional, and National Meetings***

Numerous presentations have been made at major scientific and professional meetings throughout the country, with many new presentations scheduled. *Selected* presentations to date include:

- The Annual Meetings of the American Society on Aging—2002, 2003, 2004, 2005, 2006 (scheduled)
- The 2004 Annual Meeting of The Gerontologic Society of America (and scheduled for 2006 Annual Meeting)
- The 2004 Annual Meeting of the Society of the Arts in Health Care (and scheduled for 2006 Annual Meeting)
- The 2005 Mini Conference on Creativity and Aging for the 2005 White House Conference on Aging
- The 2005 Annual Meeting of the Wallace Foundation
- The 2005 Annual Meeting (“Creative Connections”) of National Guild of Community Schools of the Arts
- The 2005 Annual Meeting of the American Art Therapy Association
- The 2005 Annual Meeting of Grant Makers in Aging
- The 2006 Annual Meeting of the American Society on Aging
- The 2006 Annual Meeting of the Society for the Arts in Health Care

• In addition, numerous other university-based, state, local, and other presentations have been made about the study since it began in 2001. Many others are being scheduled.

### ***Public Media***

Media coverage of this Creativity and Aging Study has been truly extensive, and too numerous to delineate. Two of the biggest coverages have been:

- The Associated Press coverage in 2004 that appeared in 200 newspapers around the world. Dr. Cohen was inundated with calls following this coverage, leading to the publication of early results for public access on his Center’s website delineated above.
- Coverage of the study by *The CBS Evening News with Dan Rather*, following the presentation of initial results at the 2004 Annual Meeting of the American Society on Aging. Online viewing of this CBS coverage can be accessed at the following web address:

<http://www.cbsnews.com/stories/2004/05/21/eveningnews/main618935.shtml>

• Since publication of Dr. Cohen’s new book, “The Mature Mind” (the last chapter focusing on the Creativity and Aging Study, in January of 2006, Dr. Cohen has had more than 100 media interviews, many of which expressed particular interest in the Creativity and Aging Study.

***NOTE: This Final Report Concludes with selected Snapshots of Participants from the 3 Study Sites.***

## SNAPSHOTS OF PARTICIPANTS FROM THE 3 STUDY SITES



Oldest participant in the study—turned 101 during 2005—reading the poem he wrote to the Brooklyn site poetry group. These groups provide strong camaraderie.



The *Senior Singers' Chorale* from the Washington, DC area study site, performing at the Millennium Stage of the Kennedy Center—one of several appearances they have made there.



Participant in one of the Brooklyn art making groups, reflecting on her newly found sense of meaning and mastery: “This is my first time as an artist. Before one year ago, I only knew work”.



Member of a largely Spanish speaking, jewelry making group, at the Brooklyn site, describing the impact of this experience on his marriage. “This class saved my marriage. I make my wife something beautiful every week.”



Participants in the art groups of the San Francisco site, demonstrating their accomplishment of mastery and control, and sense of satisfaction in the process.

