

Arts and Culture in Medicine and Health:

A Survey Research Paper

A WORK IN PROGRESS

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The views expressed in the paper are solely those of the author and should not be attributed to anyone else. Any errors the paper may contain are solely the responsibility of the author.

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NOTE TO THE READER

Research for this survey paper was carried out primarily in 2002 and draws principally on secondary sources. At the time it was written, it was clear that more studies and research findings were on the verge of being published. A few that are mentioned in the text have been published since this paper was assembled. In addition, other important new documentation has emerged that is not covered in this paper.

At the time of the initial research, the author had difficulty finding readily accessible documentation of research and activities in Canada involving the intersection of arts and health. Consequently, this paper tends to focus on published material from the United Kingdom, the United States, and Sweden, which seems to have a reasonable probability of being relevant and applicable to Canada.

In the course of organizing the Canadian Forum on Arts and Health 2005 (Vancouver, March 14/15, 2005) the author has had the privilege of being in touch with many individuals across the country who are working in various aspects of arts and culture in health promotion and education; in arts informed research and health research dissemination; in the use of creative arts therapies and arts programming in health care facilities; in arts-based community development; and in many other of the diverse ways that arts, culture and health meet.

It is the author's intention to write a brief summary of the current activities and research in Canada that are coming forward as a result of people's interest and participation in the Forum. If you are involved in any aspect of the many diverse ways in which arts, culture and health intersect in Canada, please consider listing yourself in the Catalogue of People and Activities of Canadians involved in arts in health, an initiative that is part of the Forum. A listing is a way of letting others who may be interested in your work know about your research and / or activities.

Go to the British Columbia Arts Council web site, www.bcartscouncil.ca, to the "Reference Documents" web page of the Canadian Forum on Arts and Health to download a short form you can fill out and e-mail to artshealthforum@look.ca.

Quotable Quotes

"An active engagement with the arts - whether as a participant, or as a viewer - is one effective way for individuals and communities to address issues of public health. To be "healthy" is something that we all aspire to, recognizing that prevention and health promotion are important in avoiding the costs and issues associated with acute care later on, down the road. Certainly experience has shown us in supporting community projects that the arts are effective in health promotion."

Sarah Chilvers, (former) Program Director for Health and Social Development, Vancouver Foundation

"The doctor's job is always an act of creative interpreting. It is analogous in detail to the reader's job of understanding the written or spoken word . . . Every week, at the meetings of the Osler Literary Roundtable, I am schooled again in the nuances of interpretation, my ear is honed in the ways of hearing. And every day in the clinic, thereafter, it helps me as I try to understand the metaphor of the body and the story the patient tells."

Dr. Frank Neelon, Duke University Medical Centre

"As I watch people move through our arts programs, learning new skills, discovering new parts of themselves, finding creative ways of expressing their perceptions, I have no doubt about it – art heals. The arts provide preventative and integrative approaches to healthcare, building self-esteem and a sense of identity and belonging, connecting people and celebrating life. All these things are part of an individual's healing process."

"Group art activities bring people together on common ground, and can bring healing to a community. Time and again in Elders Share The Arts' programs, I have seen people learn to observe, explore and create together. We lead them to explore commonalities and differences, essential building blocks of respect, tolerance, appreciation and enjoyment of each other."

Susan Perlstein, founder of Elders Share the Arts and the (American) National Centre for Creative Aging

"The contribution which participative arts projects can make to increased self-esteem, the reduction of social isolation and improved social networks, is linked directly to issues of health and well-being – the social nature of arts projects (combined with the opportunity to feel a sense of achievement) contribute to the improvement in psychological health."

Fred Coalter, Centre for Leisure Research, University of Edinburgh

"While learning in other disciplines may often focus on development of a single skill or talent, the arts regularly engage multiple skills and abilities. Engagement in the arts – whether the visual arts, dance, music, theatre or other disciplines – nurtures the development of cognitive, social and personal competencies."

Champions for Change: The Impacts of the Arts on Learning, compilation of studies by seven American teams of researchers

"Attending cultural events is linked with longevity. People who rarely attended such events [theatre, concerts and live music performances, museums, art exhibitions, and cinema in Sweden] ran a nearly 60% higher mortality risk than those attending most often."

Lars Olov Bygren, Boinkum Benson Konlaan, Sven-Erik Johansson, Department of Social Medicine, University of Umea, Sweden

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Executive Summary

Can arts and culture contribute more significantly to the health and well-being of Canadians and our health care system? This paper summarizes preliminary research that indicates arts and culture have a significant role to play in reducing the costs of many medical treatments, in relieving stress and tension in professional caregivers, in promoting both individual and community health, and thereby potentially avoiding future demands on our health care system.

Creative arts therapies (visual arts, dance movement therapy, drama therapy and psychodrama, music therapy, and poetry or bibliotherapy) have been contributing to medical treatments in North America and many European countries for more than a century. Recent research is demonstrating their efficacy in many areas, including:

- reducing anxiety and tension in cardiac and surgery patients and thus the use of mood altering drugs and painkillers;
- reducing pain and discomfort in individuals suffering from a wide variety of illnesses and thus reducing or avoiding other pharmaceutical use and their adverse reactions;
- enhancing the development of critically ill newborns, reducing their time in intensive care units and thus the costs of their care;
- increasing the speed and completion rate of a variety of medical interventions, including colonoscopies;
- intervening to help mentally ill remain stable and thus avoid expensive hospitalization;
- reducing tensions and stress among doctors, nurses and other caregivers;
- providing more comfortable, relaxing, and encouraging physical surroundings in medical facilities for patients and their families.

Reports in medical journals and other refereed periodicals around the world are documenting the current important contributions of the creative arts therapies to medical treatment and healthcare and exploring ways they can make even more significant contributions.

A literature search reveals that arts and culture have important contributions to make to at least seven of the twelve determinants of health defined by Health Canada. Research in the United Kingdom and the United States is demonstrating that investment in arts and culture produce important social benefits that have a strong positive impact on both individual and community health. Engaging in both community arts programs and more formal cultural performances have both been shown to have positive effects including the following:

- increased self-confidence and self-esteem and a sense of achievement;
- reduced feelings of fear, anxiety and social isolation;
- improved social networks and new friendships;
- stronger community identification and pride;
- development of community networks;
- generation of physical and social community renewal and increased financial investments in communities;
- promotion of inter-cultural and inter-generational understanding and higher levels of social tolerance;
- reduced crime, youth delinquency and anti-social behavior generally;
- increased local organizational capacity; and
- a general feeling of well-being.

Arts and cultural activities have also been shown to be exceptionally effective in reaching out to and engaging marginalized groups, youth-at-risk, and the elderly. Arts programming levels the

playing field for disadvantaged youth and leads to higher levels of academic achievement and life success in youth from all socio-economic backgrounds. Arts and culture also can be used as powerful vehicles for bringing people together to address difficult and divisive social issues, the improvement or resolution of which have been correlated with improved health in many populations.

Research published over the last decade has been providing strong evidence of the power of arts and culture to improve the health and well-being of individuals and communities of all kinds. Recent Swedish research even demonstrates the positive correlation between attending cultural events and performances and higher levels of well-being and increased longevity.

The results of this preliminary research into the relationship between arts and culture and health clearly demonstrate there is a very high probability that increasing levels of investment and activity in Canadian arts and culture can have significant and far reaching positive impacts on the health of Canadians and thus on the demands on our national health care system.

Arts and Culture in Medicine and Health

Introduction

Health care is one of the most important public policy issues facing Canadians today. It occupies a central place in public discourse because it is a high priority concern for Canadians and because it accounts for such a substantial, and growing portion, of government expenditures. In considering how the health of Canadians can be promoted and the demands on the health care system kept at manageable levels, it is important to explore the relationship of arts and culture to both the health care system and to individual and community health for two reasons. First, there is evidence that arts and culture can contribute to improving the effectiveness of health care and potentially to reducing both costs of medical treatment and the demand for medical treatment. Second, if as a society we don't explore all the options for making the health care system more financially affordable, we run the risk of having health care costs overrun our capacity to fund other aspects of life in Canada that we value.

This paper is an initial attempt to identify where the linkages are, where the arts are already making a contribution to medical treatment and population health, and where other significant contributions can be made. The paper briefly reviews the development and current place of the arts, and creative arts therapies, in the practice of modern medicine. It then looks at the implications of this experience, and related research on health and culture in other countries, for the future role of arts and cultural activities in relation to health care in Canada. The paper presents an overview of preliminary research.

It is the writer's view that this initial research suggests a more comprehensive investigation is merited to explore how funding and support for arts and cultural activities may be able to contribute to avoiding demands on the public health care system, reducing medical costs in the system, and generally enhancing the health and well-being of individuals and communities in Canada.

1. An Overview of the Current Relationship Between the Arts and Medicine

The apparent separation between "art" and "science" is a relatively recent development in human history. It is also a separation that seems to be rapidly dissolving in many arenas, including in medicine and health care. Interdisciplinary experimentation and collaboration among the arts and medicine has been developing for more than a century in Europe and almost as long in North America. This formal collaboration has accelerated in the last few decades and has become increasingly visible with the formation of organizations such as the International Arts-Medicine Association and the Society for the Arts in Healthcare in the United States, the International Society of Music and Medicine, and the Japanese Association for the Arts in Healthcare, to name a few.

Two conferences in 2002 illustrate the current high level of interest in the intersection of the arts with medicine and health. The Society for the Arts in Healthcare has been funded by the U.S. Department of Health and Human Service's Agency of Healthcare Research to hold a planning conference on possible uses of arts (and humanities) in the care of people diagnosed with, or at risk for, Type 2 diabetes. The Centre for Global Partnership of the Japan Foundation is funding the Japanese Association for the Arts in Healthcare, Tanpopo-No-Ye, and the Society for the Arts in Healthcare to research and meet collaboratively and report on "Caring for Caregivers"

projects in hospitals, institutions, and homes in the United States and Japan. (*Society for the Arts in Healthcare*)

1.1 A Multi-Faceted Relationship

The association of arts and artistic activity and the practice of modern medicine is a rich and diverse one, and an evolving one. It encompasses

- a) medical illustration and education;
- b) the creation of environments that support or foster healing;
- c) the treatment of disease and other mental, emotional and physical dysfunctions, including the alleviation of pain; and
- d) the maintenance or enhancement of individual and community health and well-being.

The following paragraphs briefly summarize the role of the arts in medical illustration, education, and creating environments that support healing, before moving on to the main focus of the paper which is on (c) and (d) above.

1.2 Medical Illustration and Education

Historically, artists were the first medical illustrators. They provided the anatomical drawings and models that were used in medical education, a role which continues today. Medical illustration today is a very active field which includes new tools, i.e. cameras and computers and a rich array of simulation techniques, as well as the traditional sculptural work. Artists working in a variety of media continue to play a central role not only in providing materials for the education of doctors and other medical professionals, but also in providing educational materials for patients and the general public.

Today, video artists and film makers are centrally involved in the creation of educational media to describe treatment options for patients and particular medical procedures. Through film or video, patients can be “walked through” what their experience is likely to be in advance, a practice intended to reduce anxieties about a procedure, as well as to inform.

Films and videos, along with drama, are also used to educate the general public about particular diseases and public health issues. Street and radio dramas, and children and youth theatre productions are used effectively in many countries to reach populations at risk, especially teenagers, at-risk-youth and marginalized groups. Many organizations, such as the World Health Organization, recognize that the arts can provide powerful health educational messages that often differentially capture the attention and interest of otherwise uninterested workers or the public. Assets of the use of symbols and art in medicine as summarized by Richard Lippin, M.D. include the following:

- *“The arts, especially visual arts, music, and dance, transcend language barriers in an increasingly international multilingual world.*
- *Arts which transcend language can be targeted to semiliterate or illiterate communities as a bridge to increase literacy.*
- *Art and symbols represent a more rapid form of communication than written or spoken language.*
- *Incorporating the arts into educational experiences has particular appeal to youth, an audience which stands to benefit most from increased health and science education.”*
(Lippin 11-12).

The arts are also used to enrich and extend the medical curriculum. “The University of Virginia offers hands-on participation in an art studio for medical students. The University of Massachusetts uses the arts to help students cope with death and dying. These programs are designed to help medical students and doctors who are seeking balance between the clinical

aspects of medical care and the needs of patients, themselves, and their families for tenderness and empathy.” (Palmer 3)

Free Street in Chicago, Illinois, runs ArtsConnect in cooperation with Northwestern medical school's department of Medical Ethics and Humanities. The program links patients, families and medical students. The program helps patients address their basic needs for expression, self-control, self-respect, and acceptance which can be severely challenged in a hospital. It helps future physicians learn how to work with patients, especially children, to develop their ability to understand the whole person, and to discover how the arts can play a role in the healing process. (Free Street)

An eloquent testimony to the power of the arts to contribute to the education of doctors, as well as help them cope with the stresses they face, comes from a participant in the Osler Literary Roundtable at the Duke University Medical Centre. A group of doctors, nurses and other staff meet weekly to read and discuss literature. The group named itself in honour of Sir William Osler, a physician/teacher/writer who advocated the cultivation of the arts for doctors in training and in practice. Dr. Frank Neelon wrote the following about his participation in the Literary Roundtable.

“A casual look at Osler’s advice, or conversation with even devotees of the arts, sometimes leaves one with the perception that the arts function in a merely recreational way, that they divert or refresh the doctor after the toil and burdens of the medical day, that they help because they differ so from the usual business of doctoring. In point of fact, I believe that those opinions are precisely wrong! The doctor’s job is always an act of creative interpreting. It is analogous in detail to the reader’s job of understanding the written or spoken word. The more we attune ourselves to the ‘hearing’ that forms the basis of careful reading; the more we see the multitude of ways in which readers can interpret the same words displayed on the same printed page, then the better we prepare ourselves for the doctor’s great and fearsome task: listening to the patient’s story and trying to make sense – anatomical sense, physiological sense, psychological sense, social and societal sense – out of it.

Every week, at the meetings of the Osler Literary Roundtable, I am schooled again in the nuances of interpretation, my ear is honed in the ways of hearing. And every day in the clinic, thereafter, it helps me as I try to understand the metaphor of the body and the story the patient tells.” (Neelon qtd in Palmer 6)

1.3 Creation of Environments that Foster Healing

Visual, literary and performing arts have an extensive presence in hospitals, hospices and other health centres in many countries around the world and in North America. In the United States, murals were painted in hospitals by the Works Progress Administration in the 1930s. In the 1950's major art acquisition programs were launched in a number of cities by organizations like the United Hospital Fund of New York, the Mayo Clinic, and Cedars-Sinai Hospital in Los Angeles. Australia has a national program. UNESCO's Arts in Hospital project has links with the World Health Organization, the Council of Europe, and the European Union. Hospital Audiences, Inc. in New York City places artists and offers live performances in medical facilities and escorts patients to theatrical productions.

Artists and architects are involved in the design of hospitals and other facilities. For example, Chelsea and Westminster Hospital in the United Kingdom has been exploring a collaboration with Architects for Health on an analysis of the design of health care buildings, particularly the impact of colour on patients' length of stay and drug treatments.

The arts are enriching the healing process by bringing restoration and relief to patients, visitors and staff of medical facilities through the use of paintings and televised visual images and arts

programs in patients' rooms; hanging art exhibits in public halls; presenting live music in lobbies and on patient units; creating sculptural and plant gardens in outdoor spaces; supporting poets or writers in residence to introduce patients and staff to creative writing; using art that helps people find their way through large, confusing building complexes, and many other ways. (Palmer 3,5)

As a nurse at Duke University Medical Centre in North Carolina commented on an offering by that institution's Cultural Services Program: "There are no words to express to you what this means to the morale of the patients and staff and everyone."

2. Creative Arts Therapies in Modern Medical Treatment

There are six branches of creative arts therapies that are generally recognized in North America. While the phrase "art therapy" is occasionally used as an umbrella term to refer to all of the arts-based disciplines, it formally refers to therapies that involve visual arts. The other branches are music therapy, dance / movement therapy, drama therapy, psychodrama therapy, and poetry therapy (also known as bibliotherapy).

"Art therapy", as its name implies, is a direct combination of art and science. In North America, each of the creative arts disciplines is an established profession, with scientific theories, a body of knowledge, ethical codes and standards of practice. There are specified training and continuing education requirements for practitioners, as well as processes for examination and certification, generally involving extensive hours of supervised clinical practice. Many of the disciplines publish their own professional journals. There are undergraduate and graduate programs in dozens of universities in Canada and the United States and around the world, offering training and degrees in all the branches. There are also specialized training schools and institutes. Just in visual arts therapy, there are at least five specialized institutions for training and two university programs in British Columbia, Ontario and Quebec.

Presented below are brief descriptions of the generally recognized categories of art-based therapies, along with some examples of how some of the therapies are being currently used in the practice of medicine. Within each category of creative arts therapies, there are rich and diverse schools of thought and approaches to practice, a discussion of which is beyond the scope of this paper. The interested reader is referred to the bibliography for publications which provide detailed information on each therapy. The following general descriptions of each field are intended simply as an introduction to the therapies and their contemporary use. (See Definitions at the end for more formal definitions of the therapies.)

2.1 Art Therapy (visual arts)

Art therapy was developed to utilize the power of visual artistic expression as a means to reconcile emotional conflicts, reduce anxiety, develop coping skills, and increase self-awareness and self-esteem, particularly for children, and those with dementia or mental illness.

The origins of art therapy can be traced back to the late nineteenth and early twentieth century in Europe, when a group "of European writers described the spontaneous art done by patients in mental hospitals. This seemingly irrepressible urge to make art out of any available materials confirms the compelling power of artistic expression to reveal inner experience. It was because art making provided a means of expression for those who were often uncommunicative that art therapy came to be developed as one of the helping professions" (American Art Therapy Association).

Art therapy provides a way for people to communicate thoughts and emotions that it may be difficult for them to express directly, or that they find too difficult to talk about at all. For those who are unable or unwilling to express themselves verbally because of injury, physical or emotional trauma, developmental difficulties, etc, art therapy, provides a powerful medium for self expression and communication with others.

Art therapy as a separate field developed simultaneously in England and the United States. Margaret Naumburg, considered the founder of art therapy in the United States, was writing books in the 1940s and 1950s on “art therapy and its applications with psychiatric patients”. In 1961, the first journal in the field was published as the *Bulletin of Art Therapy*; by the 1970’s the first graduate degrees were being awarded in the United States (American Art Therapy Association).

Art therapy is currently “practiced in mental health, rehabilitation, medical, educational, and forensic institutions” to effectively treat a wide variety of developmental, medical, educational, social, and psychological disorders. A review of the literature indicates art therapy is considered appropriate for people of all ages and ethnic backgrounds, which is one of its prime areas of utility as it can bridge cultural, linguistic, and age-related barriers. Art therapy requires minimal equipment, and can be adjusted to suit the needs of its participants, whether in individual, couples, family, or group therapy formats.

Dr. Harriet Wadeson, an American therapist in the field since the 1960s, has used art therapy to treat and assess those with depression, mania, schizophrenia, addictions, and psychosis. In her practice, she found that the art produced by those with schizophrenia and other mental illnesses could be used to predict their mental state and “recovery style” (Wadeson xxii). This experience is echoed by Kathleen Collis, former Coordinator of the Adult Community Support Team for psychiatric patients in the Victoria Mental Health Centre. In treating people suffering with schizophrenia, she found she could determine from their drawings when their mental condition was starting to deteriorate, and so could trigger intervention to start or modify medication that avoided the individual needing expensive hospitalization. By monitoring her clients’ drawings, she could assist them to effectively function outside of a hospital environment. The artistic “record” of each individual also provided a way for the individual to develop some perspective on his own state and changes, often making improvement highly visible, thus reinforcing the individual’s progress (Collis, personal communication, May 2002).

Art therapy is increasingly being used as an adjunct treatment with cancer patients. Cancer patients who have completed medical treatments are reported as often left with unresolved psychological issues, including a threat to self-identity. Since 1995, the Memorial Sloan-Kettering Cancer Centre has been offering to post treatment cancer patients a 10-week group art therapy program, known as *The Creative Journey*. Its aim is to help cancer patients re-establish their self-identity and self-confidence, by offering some repair or healing around strengthening the inner self and trusting the environment. (Luzzatto, Gabriel)

The Toronto-Sunnybrook Regional Cancer Centre, started an art therapy/museum education program to facilitate creative ways for patients to respond to their cancer experience. A program was designed to “provide cancer patients with opportunities to learn about the McMichael Canadian Art Collection and to explore personal feelings about their cancer experience through combined gallery and studio components. Through art therapy, cancer patients are encouraged to discover ways to face pain and misfortune and be creative in shaping their lives. Evaluation of the art therapy / museum education program demonstrated many benefits for cancer patients including emotional and social support, psychological strength, and new insights.....” (Deane, Fitch, Carman)

2.2 Dance / Movement Therapy

The key theory behind dance/movement therapy's efficacy is that the mind and body are interrelated, which is why it effects changes in feelings, cognition, physical functioning, and behavior" and thus can "further the emotional, cognitive, and physical integration of the individual." (American Dance Therapy Association) "Its basic premise is that body movement reflects inner emotional states and that changes in movement behavior can lead to changes in the psyche, thus promoting health and growth." (Levy 1)

Although there has been long standing recognition of the therapeutic benefits of dance by dancers and dance instructors, dance therapy did not come into formal existence until the 1940s, thanks to the pioneering efforts of many dance professionals, particularly Marian Chace in the United States. When psychiatrists in Washington, DC discovered that "their patients were deriving benefits from attending Chace's unique dance classes," they asked Chace "to work in the back wards of St. Elizabeth's Hospital with those patients who had been considered too disturbed to participate in regular group activities." (American Dance Therapy Association)

Like art therapy, dance / movement therapy can be a powerful vehicle for self-expression and communication for those who are unable to communicate verbally or who have impaired verbal ability, such as in the psychiatric setting referred to above. Dance / movement therapy is also used with brain injured patients focusing on developing awareness, cognition, motivation, concentration, control and memory, as well as on emotional issues. Dealing with feelings of anger, frustration, remorse, and loss are all aspects of treatment, as are dealing with pressing issues of dependency and autonomy. (Levy 259)

Dance/movement therapy is currently being used to treat individuals with severe emotional disorders, as well as individuals of all ages and varying conditions, including "eating disorders, adult survivors of violence, sexually and physically abused children, dysfunctional families, the homeless, autistic children, the frail elderly, and substance abusers." Many innovative dance/movement therapy programs have been developed to treat chronic medical conditions, such as "cardiovascular disease, hypertension, chronic pain, and breast cancer." (American Dance Therapy Association)

The potential of dance/movement therapy to assist in disease prevention and health promotion programs is increasingly recognized. A growing use of dance / movement therapy is to deal with both preventing stress, and thus stress-related disorders, and to address the effects of stress.

To prevent the negative consequences of stress, dance can be used as a kind of stress inoculation, through cognitive and /or physical action, developing enhanced well-being and higher tolerance levels to stressors. Dance, through the imagery of kinetic discourse, allows individuals to play with anticipated events that have potential anxiety or feared consequences -- acting them out, distancing them, and thus making them less threatening; creating possible responses and rehearsing them in a safe situation. Past and current experience can also be danced, evaluated and potentially resolved. Dance also through contributing to physical fitness, "conditions the individual to be able to reduce, eliminate, or avoid chronic fatigue or lessen the impact of acute fatigue that are symptoms of stress." Dance is also understood to provide a means to recollect and release past repressed emotions and tensions and thereby come to terms with them. (Hanna 18-27) Lambo believes the essential psychological function of dance is the prevention of depression and of accumulation of other psychic stresses. (qtd in Hanna 22)

As a response to experienced stress, dance provides three constructive options: (1) a means to confront the stressors by acting them out, working them through, learning about the self, and

gaining personal insight; (2) providing a diversion from stress; and (3) providing relaxation of stress-induced muscle tension. Hanna reports research suggesting that tension reduction following exercise lasts longer than more passive therapies such as meditation or simple distraction (Morgan, 1985, 96, qtd in Hanna 26). This may be because dance increases the levels of brain norepinephrine and/or serotonin. Various endorphins produced and released into the body as a result of the physical activity of dancing can be morphine-like in reducing the perception of pain and producing a state of euphoria. Hence, dance and other forms of vigorous activity have been found to not only reduce stress but “make moderately depressed or anxious individuals feel better.” (Hanna 23-26)

The Japan Dance Therapy Association (JADTA) reports a growing interest in the use of dance therapy in promoting general well-being in individuals and the community, using many forms of dance. The Butoh dance method is described as promoting deep mind/body integration with conscious / subconscious integration. Research done by the Hokkaido Technological College reported that various conditions were shown to decrease, including migraines, muscle tensions, nervous stomach conditions, sleeplessness, hypertension, kidney inflammation, and gastric ulcers. Surveys of participants in the dance therapy indicated that following the therapy, they felt happier and better able to enjoy their work, and they felt they had more meaning in their life. They also reported starting friendships through the therapy.

Studies “on the effects of dance/movement therapy in special settings (such as prisons and centers for the homeless)” as well as “with specific populations including the learning disabled, frail elderly, emotionally disturbed, depressed and suicidal (and) substance abusers” are pointing the way towards future rehabilitation possibilities. (American Dance Therapy Association)

2.3 Drama Therapy and Psychodrama

According to the American National Association for Drama Therapy, drama therapy evolved from the experience and research of psychotherapists, teachers, and theatre professionals who recognized that “traditional verbal therapies were [sometimes] too rigid to permit clients to confront and work through individual disturbances.” The balance between the “verbal and non-verbal components of drama therapy with its language of metaphor” allows people to actively participate in their own healing. “Drama therapy is an active approach that helps the client to tell his or her story to solve a problem, achieve a catharsis, extend the depth and breadth of inner experience, understand the meaning of images, and strengthen the ability to observe personal roles while increasing flexibility between roles.” (National Association for Drama Therapy)

Specific benefits often achieved in drama therapy include: reduced feelings of isolation, development of new coping skills, and an enhanced ability to express a broader range of emotions. Drama therapy is useful in a large variety of settings, to many different client populations, including those in “psychiatric hospitals, mental health facilities, day treatment centers, nursing homes, centers for the physically/developmentally/learning disabled, substance abuse treatment [programs], schools, businesses, and correctional facilities”. Drama therapy can be especially beneficial to individuals “with disorders associated with aging.” (National Association for Drama Therapy)

Closely related to drama therapy is psychodrama, considered by some to be a sub-discipline or component of drama therapy, and by others to be a separate field. It is based on the theories and methodology of Jacob L. Moreno, M.D. (1889-1974) and focuses more on group dynamics and role training to facilitate constructive change in participants' lives. “Psychodramatists provide services to diverse groups – from children to the elderly, and from the chronically mentally ill to those seeking understanding and learning in their work settings.” Various forms of psychodrama are currently used in schools and corporations as well as within the mental health field. (American Society of Group Psychotherapy and Psychodrama)

Psychodrama provides for close approximation of real life situations in a structured, safe environment. Participants can recreate and enact scenes in ways which allow both insight and an opportunity to practice new and more appropriate behaviors. Individuals focusing on a specific situation are supported by members of the group who take the roles of others involved in the circumstances being worked with. The psychodrama thus provides an opportunity to practice new behaviors and skills and evaluate their effectiveness within the supportive atmosphere of the group. Because there is action in psychodrama, advocates suggest it is often more empowering than therapies which are simply verbal.

Sociodrama is a form of psychodrama that allows a group as a whole to safely explore various perceptions on social issues. Members of a group might address problems such as drug abuse, street or family violence, or teenage pregnancy and together arrive at shared understandings and potentially innovative solutions to difficult issues. (American Society of Group Psychotherapy and Psychodrama)

2.4 Music Therapy

Musical therapists work in many settings with clients with psychiatric disorders, alcohol and drug problems, neurological disorders, and those who are emotionally disturbed, learning disabled, and mentally and physically challenged. They also work with the elderly and terminally ill. Music therapy has also been found beneficial in a preventative sense by assisting healthy individuals with stress reduction, childbirth, and biofeedback. (American Music Therapy Association)

According to some scholars, “the idea of using music as an adjunct to medical treatment developed in the late 18th century.” Later, following the first World War, there were documented uses of music as therapy, and during the second World War research in music therapy developed in veterans’ hospitals in the United States “when community musicians began playing for thousands of veterans recovering from physical and emotional trauma. [It was discovered] music could help alleviate pain, calm or relax patients and counteract depression, and encourage movement as part of physical rehabilitation.” (Nelson) The sheer numbers of patients made the use of traditional verbal therapies impractical, but music therapy found a place. Many studies were conducted on “the physiological changes that music had on such variables as mood, blood pressure, breathing, and pulse rate.” (American Music Therapy Association)

Today, research on the effects of music therapy on “traumatic brain injury, substance abuse, psychiatric disorders, special education needs, physical and mental disabilities, and Alzheimer’s disease” has been conducted and new applications for music therapy in hospitals and clinical settings are increasingly being uncovered. (American Music Therapy Association)

Music has been widely recognized as a means of decreasing or alleviating discomfort and anxiety, and is currently being used in “coronary care, surgery, post anesthesia recovery and neonatal intensive care units. Both the physiologic and psychologic effects of music have been evaluated.” (Collins and Kuck) Significant decreases have been reported in postoperative anxiety among adult patients who received music therapy, as well as “therapeutically rewarding decreases in the heart rates of cardiac care unit patients who received music therapy.” (Moss, Davis, Cunningham qtd in Collins, Kuck 1) Since anxious patients are often medicated, the use of music to relieve anxiety, with its concomitant physical stress, can increase patient comfort, while reducing pharmaceutical costs, and avoiding potential untoward side effects of medication.

The use of music therapy in neonatal intensive care units (NICUs) has been shown by a number of studies in the United States to have significant positive impacts on the development of critically

ill newborns, while reducing the time and cost of care. Infants in NICUs where music therapy has been used have been reported to exhibit less agitation and symptoms of stress, increased neonatal blood oxygen levels, and as much as doubled daily weight gain - all factors which portend a better developmental outcome as the infant matures. Studies also show a trend to faster growth in head circumference for babies exposed to music, which has positive implications for brain growth and development. (Schwartz, Ritchie et al)

The economic impact of the Piedmont Hospital (Atlanta, Georgia) experience where music therapy was introduced throughout the NICU in 1998 is summarized by Schwartz et al in part, as follows: “. . . the benefits of incorporating music into our NICU care were consistent with previous studies showing faster discharge from the NICU and decreased hospital charges with music. . . . In our institution, the initial cost of music system hardware was recouped by a corresponding decrease in medical cost of care within two weeks. It appears that with a relatively small expenditure for music in our neonatal ICU's we can decrease the time in the NICU by over three days and save between 2,000 and 9,000 US dollars for every premature baby.” Further, Swartz et al reported: “We could not have set up an on-going non-music control group [at the end of the study period] since ethically it would have been difficult to withhold music since it had become our standard of care.”

In Germany a controlled experiment was undertaken with routine colonoscopies. A group of 60 patients underwent the conventional procedure; a group of 59 received additional music therapy. The study found that “under music therapy, the rate of completed colonoscopies was higher, and examination time was significantly accelerated”, while the use of some types of pain killers was reduced. The conclusions of the study were that: “Accompanying music therapy reduces requirement of analgesia during colonoscopy, favours completion of the procedure and shortens examination time. Music therapy seems to promote safer conditions for endoscopic practice and diminishes patients' discomfort.” (Schiemann, Gross, Reuter and Kellner).

Also in Germany, locating departments of music therapy within neurosurgical rehabilitation clinics has resulted in music therapy becoming an integral part of multi-professional treatment and research activities. “The diverse intervention strategies in Music Therapy focus upon auditory, motor, visual, cognitive and affective processing which are all involved in receptive and expressive musical behaviour and which affect related non-musical behavior.”

S. Gilbertson of the Klinik Holthausen in Hattingen, describes work in areas of clinical application which include “communicative interaction with patients who can not (initially) use verbal communication (aphasic disorders) . . . cognitive organization and mnemonic framework with patients with neuropsychological functional disorders [such as] concentration, memory and perception; . . . and enhancing personal and social integration following individual isolation [and] social withdrawal.” (Gilbertson)

In the United States, preliminary investigation on the effects of keyboard playing on the management of hand osteoarthritis in older adults showed positive results. Participants played on a touch sensitive electronic keyboard for approximately 20 minutes, four days a week, for four weeks. Pre and post evaluation measures included occupational therapy measures of finger pinch meter and range of motion. Participants also used a Likert scale (1-10) to assess arthritic discomfort. Results indicated significant decreases in arthritic discomfort after playing; and significant improvement in finger strength / dexterity, velocity and range of motion. Participants indicated they enjoyed the treatment and additional benefits included “increased socialization for older adults with osteoarthritis who tend to isolate themselves due to disease deterioration.” (Zelazny abstract)

2.5 Poetry Therapy

The (American) National Association for Poetry Therapy's website states that "poetry therapy and bibliotherapy are terms used synonymously to describe the intentional use of poetry and other forms of literature for healing and personal growth." There are two types of bibliotherapy. Developmental Interactive Bibliotherapy "refers to the use of literature, discussion, and creative writing with children in schools and hospitals, adults in growth and support groups, and older persons in senior centers and nursing homes." Bibliotherapy is used specifically in these community settings, "not only to foster growth and development," but "as a preventative tool in mental health". Clinical Interactive Bibliotherapy is the term used for bibliotherapy as it is applied "in psychiatric units, community mental health centers, and chemical dependency units." (National Association for Poetry Therapy)

Bibliotherapy is useful for health and preventative maintenance, but is also an effective therapeutic tool with "veterans, substance abusers, adolescents, the learning disabled, families with problems, prisoners in rehabilitation, the frail elderly, the physically challenged, and survivors of violence, abuse and incest. The literature and case studies provide evidence that poetry therapy is an effective and powerful tool with many different populations." Goals of poetry therapy include developing creativity, self expression and greater self esteem; strengthening interpersonal skills and communication skills; ventilating overpowering emotions and releasing tension; and promoting change and increasing coping skills and adaptive functions. (National Association for Poetry Therapy)

A study by individuals in the Department of Psychology at the University of Texas concluded that: "Writing about important personal experiences in an emotional way for as little as 15 minutes over the course of three days bring about improvements in mental and physical health. This finding has been replicated across age, gender, culture, social class, and personality type. . . Ongoing studies suggest that writing serves the function of organizing complex emotional experiences." (Pennebaker)

2.6 In Summary

A quick review of the literature with respect to the use of creative arts therapies in modern medicine, indicates it is a rapidly evolving field. All of the branches of therapies seem to be actively used both inside and outside of formal medical institutions. Certified creative arts therapists are used in adjunct therapy and complementary treatment. They are also integrated into mainstream medical treatment, in some areas, especially for lowering anxiety and calming patients, reducing discomfort, and reducing the use of pharmaceuticals. It is clear the creative arts are already playing a significant role in contemporary medical treatment, It appears they could contribute a great deal more to the efficacy of modern treatments, to minimizing the need for some types of medical treatments, and to reducing the cost of treatments, especially the use of prescription drugs. They may also be able to play a significant role in creating physical environments which are supportive of more rapid healing.

The material summarized in this section has looked at the use of creative arts therapies and the arts primarily in the context of the treatment of disease. The following section looks at the connections between arts and culture and the promotion and enhancement of health and well-being.

3. Arts, Culture and Health

As the previous section indicates, experimentation and research on the use of creative arts in the treatment of disease and illness has been actively pursued for decades in Europe and North America. Research into the relationships among the arts and culture and the promotion or maintenance of health is a much more recent phenomenon in these same parts of the world. This preliminary survey turned up some direct research. However, much of the research identified and reported here is either:

- 1) research which was aimed at looking at other impacts of the arts which also identified health effects, or
- 2) research on the social impacts of arts and culture which deals with factors that are understood to be directly related to health, broadly defined.

This section of the paper summarizes contemporary definitions of health and Health Canada's understanding of the key determinants of health. Then it looks at recent experience and research in a number of countries which indicate arts and cultural activities may have a significant role to play in contributing to or supporting key determinants, and thus in promoting health and well-being in the general population.

3.1 Definitions of Health as More than a Physical State

Both ancient approaches to health and healing and the leading edge of many streams of contemporary research and experimentation in the health care field have at their core the conception of health as embodying much more than a physical state.

There have been many approaches in the last several decades to defining health as a positive concept, something other than the absence of disease. Dr. Kenneth R. Pelletier, Clinical Associate Professor of Medicine at the Stanford Center for Research in Disease Prevention at the Stanford University School of Medicine, defines health as

“an attitude or orientation comprising our basic values and beliefs about ourselves and the world around us. It is an inner quality that gives rise to particular health practices but cannot in itself be reduced to those practices Truly to grasp the deepest meaning of health, it is necessary to broaden its definition beyond the physical. Optimal health requires an integration of physical, mental, spiritual, and environmental well being. . . . Health needs to be recognized as an ongoing process of self-discovery, manifesting a positive influence on the world around us. It is a means to living a successful and satisfying life.” (Pelletier 1992 15-16)

Health Canada's approach to health also recognizes that “health is a capacity or resource rather than a state” which supports the ability “to pursue one's goals, to acquire skills and education, and to grow.” It endorses the concept of health as “the capacity of people to adapt to, respond to, or control life's challenges and changes” --- used by C.J. Frankish of the Institute of Health Promotion Research at the University of British Columbia. (Frankish)

While these definitions are contemporary, they have their roots in ancient times. As Pelletier points out, “In 300 B.C. the Greeks referred to health as . . . the ‘healing force within’ Our current term health is derived from the Old English hale, meaning ‘whole’. . . . the fundamental essence of health (is) the concept of the body, mind, spirit, and nature as inextricably bound and functioning in concert as a whole.” (Pelletier 1992 16)

3.2 Health Canada's Determinants of Health

This broader approach to health and health care is quite evident in the work of Health Canada over the last quarter century on public health and health promotion, commonly known as population health. The federal government's White Paper, *A New Perspective on the Health of*

Canadians (Lalonde Report), published in 1974, “proposed that changes in lifestyles or social and physical environments would likely lead to more improvements in health than would be achieved by spending more money on existing health care delivery systems.” (Health Canada web site, Population Health Approach, History) This seminal report spawned a number of proactive health promotion programs in Canada aimed at decreasing health risks associated with personal behaviors in relation to smoking, alcohol, nutrition and fitness.

Further work by the Federal government and many researchers in the following years led to the proposition that there are key factors, other than the contribution of medicine and health care, that are crucial to population health. These twelve factors are described as key determinants of health by Health Canada. They include the following:

1. income and social status (including personal control and discretion);
2. social support networks;
3. education;
4. employment / working conditions;
5. social environments;
6. physical environments;
7. personal health practices and coping skills;
8. healthy child development;
9. biology and genetic endowment;
10. health services;
11. gender, and
12. culture

(Health Canada. “What Determines Health?”)

There is growing evidence that arts and cultural activities and institutions can and do play important roles in positively affecting at least seven of these key determinants of health.

3.3 Arts, Culture and Key Determinants of Health

The key determinants of health, as defined by the research assembled by Health Canada, are a group of interrelated factors, each important in its own right, but also linked to and affected by other factors. Themes that run through a number of the key determinants point to coping skills, social connectedness, and a sense of control and mastery over life circumstances as critical elements affecting the status of people’s health and their ability to recover when affected by illness.

Six of the key determinants of health are briefly explained. Descriptions and quotes on the Key Determinants are drawn from Health Canada’s web site, unless otherwise described. The descriptions of the six key determinants covered in this paper are followed by illustrations of the research and experience in several countries that indicate significant positive contributions from artistic and cultural activities and institutions to these key determinants.

A seventh determinant, employment and working conditions, is not addressed in this paper. Since poverty, low income and unemployment are recognized as highly correlated with health difficulties, the economic contribution of the arts is relevant here, and there is a great deal of research available on the economic impacts of the arts. However, it is not covered in this paper because it is widely recognized and extensively documented elsewhere.

3.3.1. A Word about Methodological Issues

Before describing Health Canada’s key determinants of health and the research that bears on them, a few words about methodological issues is in order.

One of the striking features of the literature that seeks to identify and quantify the impact of arts and culture (especially social impacts) is the difficulty the researchers encounter trying to isolate and quantify them. The difficulty seems to be in part because of the very nature of these impacts. They seem to be complex and multi-faceted, arising from some of the most fundamental characteristics of arts-based activities -- which is their ability to offer creative, integrative experiences and opportunities for connection to other individuals and deeper connections with one's communities. Thus, to disaggregate the effects of what is by nature an integrative and connecting experience is to risk missing much of its value.

Another difficulty is that social impact research on the arts is a relatively recent undertaking, so many key issues are still in the early stages of exploration. There is an ongoing debate about the appropriateness of various quantitative and qualitative evaluation methods. The reader is referred to Jermyn (2001) and Reeves (2001) for a description of the current state of the field in the United Kingdom, the challenges faced in attempting to evaluate the arts, and the strengths and weaknesses of various methodologies and many recent studies.

A review of the methodological issues in arts research is beyond the scope of this paper. It should be kept in mind, however, since there are as yet no widely accepted standards or protocols for social impact research in the arts.

The research and experience summarized below comes primarily from two countries, the United Kingdom and the United States. This material has been focused on for two reasons. First, there are extensive, sophisticated and continuing efforts to research and document the social and economic impacts of the arts in both of these countries. Second, there is a shared cultural heritage and language with Canada and a similar diversity in their populations which makes it not unreasonable to assume that experience in the United Kingdom and United States is relevant to Canada.

3.3.2 Key Determinants #1, #2, #5 & #12 -- Personal Confidence, Control and Social Connectedness

The key determinants of health are closely related and often have mutually reinforcing influence. Similarly, arts and cultural activities, organizations, and institutions seem to have multi-faceted impacts on both individuals who participate in them and the communities they operate in. Thus, it is instructive to look at some groupings of key determinants and clusters of research. Let's start with four key determinants which involve personal confidence and control and the degree of connectedness that individuals have to friends, family, and their larger communities.

Key Determinant #1 – Income and Social Status (personal control and discretion)

According to Health Canada: "The healthiest populations are those in societies which are prosperous and have an equitable distribution of wealth." The ability of high income and social status to provide the means of acquiring safe housing and sufficient good food that would contribute to health seems clear. However, it appears that these are not the most important factors. Health Canada reports: "Considerable research indicates that the degree of control people have over life circumstances, especially stressful situations, and their discretion to act are the key influences. Higher income and status generally results in more control and discretion; and the biological pathways for how this could happen are becoming better understood. A number of recent studies show that limited options and poor coping skills for dealing with stress increase vulnerability to a range of diseases through pathways that involve the immune and hormonal systems."

Key Determinant #2: Social Support Networks

The underlying premise of this determinant is that support from families, friends and communities is associated with better health. Health Canada suggests:

“Such social support networks could be very important in helping solve problems and deal with adversity, as well as in maintaining a sense of mastery and control over life circumstances. The caring and respect that occurs in social relationships, and the resulting sense of satisfaction and well-being, seem to act as a buffer against health problems.” (Health Canada. “What Determines Health?”)

Key Determinant #5: Social Environments

Health Canada maintains: “The importance of social support also extends to the broader community. Civic vitality refers to the strength of social networks within a community, region, province or country. It is reflected in the institutions, organizations and informal giving practices that people create to share resources and build attachments with others. . . . social stability, recognition of diversity, safety, good working relationships, and cohesive communities provide a supportive society that reduces or avoids many potential risks to good health.”

Key Determinant #12: Culture

Health Canada views culture as also largely an issue of inclusion. It maintains that: “Some persons or groups may face additional health risks due to a socio-economic environment, which is largely determined by dominant cultural values that contribute to the perpetuation of conditions such as marginalization, stigmatization, loss or devaluation of language and culture and lack of access to culturally appropriate health care and services.”

A quick overview of some of the medical literature on social connectedness and marginality is instructive in understanding the pervasive nature of these determinants on human well-being. Social marginality, defined as a state of weak and impermanent ties with one’s community, has been identified as a common factor among those who suffer from a variety of psychiatric or behavioral disorders. When one takes the distinguished Dr. William Osler’s suggestion that one focus not on what illness the patient has, but rather what type of patient has the illness, the degree of social connectedness stands out prominently. Citing a number of studies conducted between 1949 and 1977, the authors of *The Healing Web: Social Networks and Human Survival*, report that persons who develop schizophrenia or serious depression or who are admitted to hospital for psychiatric reasons are likely to share the problem of social marginality, as are those who suffer from alcoholism, have multiple accidents or commit suicide.

Finding a link between social connectedness and mental illness intuitively seems sound given our understanding that man is a social animal who has lived for centuries in tribes or other communities of various sizes. However, citing several other studies conducted between 1956 and 1976, the same authors report the link between social connectedness and illness to be broader still, encompassing tuberculosis, hypertension and the likelihood of having arthritis. They also cite “one extensive review of the scientific literature concerning higher mortality rates from all causes among the poor” which identified the underlying factor affecting mortality to be social marginality. (32) The vehicle for this effect seems to be that social support works to maintain or strengthen an individual’s immune system. (Pilisuk, Parks 31, 42)

The work of Janice Kiecolt-Glaser and her colleagues at Ohio State University are cited as showing “social-psychological attributes to be linked to actual immune response at the cell level.... In one study, the group found that those with higher scores on a test of loneliness and those tested under a high stress condition tended to show blood samples with lower transformation of B-lymphocytes in response to a well-known (Epstein-Barr) virus. Natural killer cell activity was shown, in a separate study, to decrease among medical students under the stress of examinations, and to be typically lower for those medical students with higher scores

on tests of loneliness and life stress. (Pilisuk, Parks 44) A study by Dr. Sheldon Cohen, Ph.D. from Carnegie Mellon University in Pittsburgh, Pa. found that social connections may actually reduce one's susceptibility to the common cold. (qtd in Spencer 60)

These studies and other research clearly suggest that increasing the level of social connectedness and social support networks could have a profound affect on both the incidence of many types of illness and their likely outcome. Where do the arts fit? Participation in arts activities can provide a place for people to come together with others in shared endeavors and experiences, and to develop that important sense of being connected, of belonging, while also releasing stress and developing new skills.

3.3.3 Relevant Experience in the United Kingdom and Australia

Since the early 1980's, there has been growing interest in, and recognition of, the impact and value of the arts and cultural activity in the United Kingdom. The origins of this interest come from a number of factors including: the efforts on the part of local authorities and regeneration agencies to find solutions to economic restructuring and the decline of traditional manufacturing industries; from a recognition of the creative and knowledge industries as rapidly expanding sectors of the economy; from government's commitment to exploring innovative solutions for neighbourhood renewal and addressing social exclusion; and from government's modernizing agenda which demands greater efficiency and accountability in public services. (Reeves 101) The initial emphasis was on the role arts and culture was playing and could play in revitalizing local and national economies and in urban regeneration (renewal).

The realization that investing in arts and cultural activity was also bringing positive social benefits followed quickly. This led to an increasing use of arts initiatives to address social problems, ranging from major capital projects to local participatory projects. A number of major reviews were commissioned to determine what is known about the social impacts of the arts, and the implications for national and local policy frameworks and initiatives.

Cultural Services / Case for the Arts - Coalter

Fred Coalter, of the Centre for Leisure Research at the University of Edinburgh, undertook one such review which was jointly funded by a dozen national and local agencies and institutes involved in leisure, recreation, sport, culture, the arts, and media. In "Realising the Potential of Cultural Services: The Case for the Arts", published in November, 2001, Coalter characterizes the shift in social and urban policy as "from a concern with financial capital and infrastructural investment, to a concentration on people and the development of 'social capital'".

Among Coalter's key findings are the following:

- "Successful participation in quality arts projects can contribute to a sense of achievement and the enhancement of self-confidence."
- Artistic activities involve the exploration of culture and meaning and have a capacity to explore difficult social issues.
- Arts can provide a vehicle for socially marginal groups to articulate their concerns, emphasize their contributions to communities and assist in social integration.
- "As with any activity which facilitates social interaction, participation and opportunities for increased self-confidence, arts projects have the potential to reduce social isolation and to permit the development of both individual and collective organizational capacities." He goes on to draw the link between social capital and well-being: "The contribution which participative arts projects can make to increased self-esteem, the reduction of social isolation and improved social networks is linked directly to issues of health and well-being – the social nature of arts projects (combined with the opportunity to feel a sense of achievement) contribute to the improvement in psychological health." (Coalter v-vi, 21-22)

In a major review of community-based health-oriented arts projects, the English Health Education Authority “refers to ‘the role of participation and social connectedness in the enhancement of people’s health by building social capital’. . . . Indicators for such improvements include:

- enhanced personal motivation (in projects and lives more generally);
greater connectedness to others;
- people’s own perceptions about having a more positive outlook on life;
- reduced sense of fear, isolation and anxiety;
- increased confidence, sociability and even self-esteem.” (qtd in Coalter 22)

Arts for Health – United Kingdom Health Development Agency

In 2000, The UK Health Development Agency published “Arts for Health”, a review of good practice in community-based arts projects and initiatives which impact on health and well-being. As described by Jermyn,

“the review was concerned with arts projects aimed at community participation, capacity building and regeneration, as well as those with health or health promotion objectives. A broad view was taken on how the relationship between art and health was articulated . . . The review stated it was ‘impossible to give precise details of improved health, particularly in light of the fact that so few projects directly provide health or social information related to health based on formal instruments of measurement’. [However], the authors suggest there was evidence (albeit anecdotal), as well as a stronger indication that increased well-being / self-esteem was directly related to involvement with the art and not just with socializing or carrying out the physical activity involved. In case studies, improvements in well-being were commonly reported by projects to include enhanced motivation, greater connectedness to others, having a more positive outlook on life and a reduced sense of fear, isolation or anxiety. Further such benefits were often brought about by the opportunities that engagement in art afforded for self-expression, enhanced sense of value and attainment and pride in achievement.” (Jermyn 29)

The Comedia Research Group -- Matarasso

Some of the most extensive research on the impact of arts and culture has been carried out in the United Kingdom by an independent research organization, the Comedia Research Group. Francois Matarasso has led a number of the studies that have looked at experience in other countries as well as in the UK. Coalter and other authors of literature reviews often draw on Matarasso’s findings. In 1997, Matarasso published “*Use or Ornament? The Social Impact of Participation in the Arts*”. This study, the first stage of an on-going research program, focuses on participation in the arts, as the area most widely claimed to support personal and community development. The study involved case study research in nine UK communities, including London, plus Helsinki and New York.

Among Matarasso’s major findings are the following:

- Participatory arts projects “are an effective route for personal growth, leading to enhanced confidence, skill-building and educational developments which can improve people’s social contacts and employability.” The study found many participants go on to become involved in other community activities or personal development through training. Most participants reported gaining practical and social skills they felt would help them in their working and home lives.

- Participatory arts projects “can contribute to social cohesion by developing networks and understanding, and building local capacity for organization and self-determination.” Matarasso found that arts projects bring people together and provide neutral spaces in which friendships can develop, intercultural understanding is promoted, and the contributions of all sections of a community can be recognized. “The arts can affirm the pride of marginalised groups, and help improve their local image.”

- Participatory arts projects “bring benefits in other areas such as environmental renewal and health promotion, and inject an element of creativity into organizational planning.”

While the research undertaken for “*Use or Ornament . . .*” did not look explicitly at arts in health care, Matarasso reports “there was considerable evidence that participating in arts projects could make people feel better. Projects in Nottingham, Durham and Portsmouth were making very positive contributions to supporting mental health service users and other vulnerable people. In Batley, Sandwell, and London, arts work with young people produced important health education resources. Finally, it was very clear that people derived great pleasure from being involved in arts activities, and that it added greatly to their quality of life. The research found that among adult participants:

- 52% feel better or healthier and
- 73% have been happier since being involved.

Matarasso also reported the “most significant outcomes were among the mental health service users, who spoke of the value of the social contact, the opportunity to be creative, the recreation and the therapeutic benefits of the arts work.”

It is noteworthy, that in drawing the implications of the research for public policy in the UK, Matarasso also concludes that participatory arts projects:

- “Produce social change which can be seen, evaluated and broadly planned for.”
- Represent a flexible, responsive and cost-effective element of a community development strategy.
- Strengthen rather than dilute Britain’s cultural life, and form a vital factor of success rather than a soft option in social policy.”

A two-year Australian study carried out in the same time frame, 1996 and 1997, focused on measuring the impact of 95 community-based arts projects. Nine case studies were carried out. The conclusions were very similar to the parallel studies in the UK. Deidre Williams found the benefits of the arts projects investigated in Australia to include developing social capital; building and developing communities; activating social change; developing human capital; and improving economic performance. (qtd in Jermyn 23)

3.3.4 Relevant Experience in the United States

There are parallels in the recent evolution and focus of both arts research and policy development in the United States with what has occurred in the United Kingdom. Many of the major foundations, other funding organizations, and arts organizations in the United States have undertaken major arts research on the economic benefits of investments in the arts, and more recently have been focusing on identifying and documenting social benefits of the arts. The findings in the United States in the areas investigated for this paper are also very similar to the findings in the United Kingdom.

Social Impact of the Arts Project - Philadelphia

One of the most extensive attempts to quantify social impacts of the arts has been undertaken by the Social Impact of the Arts Project, a research center of the School of Social Work of the University of Pennsylvania. Started in 1994 by Mark Stern, a Professor of Social Welfare and History and Co-Director of the Urban Studies program, the objective of the program has been to examine the ways in which the arts and culture might make a contribution to poverty alleviation and urban community revitalization. Since 1994, Stern and his colleagues have been documenting the impact of arts and cultural activities and organizations in the metropolitan Philadelphia region and its neighbourhoods, then testing their findings in that city against the experience in three other cities, Chicago, Atlanta, and San Francisco.

Stern summarized the findings of his work in testimony to the City of Philadelphia's Committee on Parks, Recreation, and Cultural Affairs in December, 2000 as follows:

"We have long understood that involvement in the arts can have an important impact on the lives of adults and children. Yet, this direct impact of cultural engagement on individuals is not the only, or necessarily even the most important, impact of culture on the city. Cultural providers have an effect on the quality of life in Philadelphia that affects everyone, not just those attending performances or taking classes. . . . Specifically, our project has demonstrated that the arts and culture contribute to Philadelphia's social fabric by:

- *improving the social environment for children and youth,*
- *promoting community revitalization, and*
- *overcoming historical barriers of class and ethnicity."*

Stern elaborated as follows:

- Cultural engagement makes a significant contribution to the social environment in which children are raised by helping to develop what Harvard public health researcher Felton Earls describes as "collective efficacy -- the willingness of neighbourhood residents to protect the quality of life in their local community. The trust and commitment that flow from community involvement lead to this sense of efficacy, even in neighbourhoods in which poverty and unemployment are common. Earls found this collective efficacy improves young people's chances of growing up healthy and safe. In Chicago, Earls found it reduced the level of violence and other forms of social disorder in neighborhoods. Stern found a similar impact in Philadelphia, where the collective efficacy that developed from cultural participation has had a "measurable effect on youth development indicators". According to Stern, when he looked at the most disadvantaged neighbourhoods in the city (those with the highest poverty and unemployment rates and low educational achievement), he found the areas with high levels of cultural participation have much lower rates of delinquency and truancy than other disadvantaged neighbourhoods.

- With respect to community revitalization, Stern's findings parallel those in the UK. He found "neighbourhoods with a high concentration of established cultural organizations were three times more likely to undergo revitalization during the 1980's than other neighbourhoods in the city." Specifically: sections of the city with a strong cultural presence had smaller population losses and a more rapid decline in poverty during the 1980's than other sections; and community cultural providers are strategically located to serve as facilitators of community economic revitalization.

- Stern contends that cultural programs stimulate community revitalization, in part because they build bridges across the city's ethnic and class divides. In his view, cultural organizations have a strong local presence and help to foster and maintain both economic and ethnic diversity in neighbourhoods. He also found that "approximately 80% of community cultural participants travel outside their own neighbourhood to attend cultural events." This tends to foster both insight and comfort with different peoples and different geographic areas.

Partners for Livable Communities

Created in 1977 and originally called Partners for Livable Places, this organization also progressed from documenting the economic value of design and cultural amenities to investigating what arts and culture does for social development, particularly youth-at-risk. The organization does no research itself, but works with those who do. "Since the early 1990's, Partners has developed a series of initiatives [under the 'Culture Builds Communities' banner] that address how amenities, arts and cultural institutions, neighbourhood-based arts and cultural centers, and individual artists and artisans can be valuable resources and agents of change in solving economic and social problems." (Partners for Livable Communities) Partners has built

upon the work of a number of researchers such as Stern and Shirley Brice Heath (see section 3.5.1).

In these initiatives, according to their Senior Program Officer, Penny Cuff, Partners has “seen over and over again how arts are the catalyst for bringing people together and for empowering people to get together to take action.” She describes arts involvement as non-threatening for the most part and thus a good way to bring people together. “From there community building evolves.” She reported that in her experience: “Using arts is one of the few processes that can bring people of every stripe together – people of all economic, racial and ethnic backgrounds, and people of all walks of life.” (personal communication, Aug 2002)

Strengthening Communities Through Culture – Center for Arts and Culture

The Center for Arts and Culture in Washington, D.C (1994) describes itself as an independent think tank which aims to broaden and deepen the national conversation on culture and cultural policies. It commissions research, holds public roundtables, and publishes “new voices and perspectives on the arts and culture”. (Center for Arts and Culture)

As part of its Art, Culture and the National Agenda project, the Center commissioned an issue paper titled “Strengthening Communities Through Culture” from Elizabeth Strom of Rutgers. The paper looks at ways culture intersects with civic life in communities.

Again, the research supports the power of arts and culture to contribute to many of the elements of Health Canada’s key determinants of health. Strom urges federal, state and local governments in the United States to “strengthen their efforts to use the arts as a way of addressing pressing social problems in communities – to help reduce racial and social tension, to help at-risk populations, and to help those with physical and mental disabilities participate in the mainstream of society.” (Strom 10)

Strom argues experience in the United States shows that “art and cultural activities can help:

- give members of a community a positive sense of identity and cohesion while contributing to local democracy;
- revitalize and improve the economies of cities, towns, suburbs, and rural areas;
- increase educational attainment and cultural literacy; and
- bridge social barriers and address some of society’s most pervasive systemic problems.”

According to Strom, informal or community arts (which encompass activities that offer people from all walks of life opportunities for creative expression) appear to have real value in helping to bridge social boundaries of age, gender, race, and neighbourhood. She cites a study by the Chicago Centre for Arts Policy which found “participants in informal arts projects cultivate social skills that promote tolerance and the ability to imagine social change. (Wali, Severson and Longoni 2000 qtd in Strom 36).

3.4 Enjoying Live Arts Experiences – The Mind / Body Connection

Much of the research cited in the previous sections has looked at the impacts of activities and organizations which are primarily involved in community-based arts or “community arts”. While there are many definitions of these terms, “community arts” are generally as much about the process of involving people in the making of the work as the finished object itself.”

This section looks at the impact of enjoying others’ art – strolling through an art gallery or museum, watching a play or dance performance, or attending other cultural events. There is evidence this level of involvement in what are often defined as more formal arts also has positive affects on health and well-being. There is also a growing body of medical practitioners

and other researchers who are exploring the connections between participation in cultural events and human health.

3.4.1 Swedish Longitudinal Studies – Cultural Participation, Health and Longevity

Two Swedish studies cast some direct light on the question of the nature of the relationship between arts and culture and health and longevity. These studies included both active participation in artistic activity and being a member of an audience.

In 1996, the British Medical Journal published a Swedish longitudinal study which investigated “the possible influence of attendance at cultural events, reading books or periodicals, making music or singing in a choir as determinants for survival.” A random sample of 12,675 individuals aged 16-74 years were interviewed about cultural activities by non-medical interviewers between 1982 and 1983 and then followed up with respect to survival until the end of 1991. When the effects of age, sex, educational level, income, disease prevalence, social network (weekly contacts with close friends), smoking and physical exercise were controlled for, the study found that people attending cultural events (cinema, theatre, concert and live music, museum, art exhibition, or sermon) as a spectator often had a better chance of survival than those attending rarely. (Bygren, Konlaan, Johansson 2) The authors concluded “attending cultural events is linked with longevity. People who rarely attended such events ran a nearly 60% higher mortality risk than those attending most often. (Johansson, Konlaan, Bygren, 2)

In 2001, the same authors published the results of further work that set out to assess how changes in the habit of attending cultural events in the community might predict self-reported health. Drawing on the same data used in the earlier study, but focusing on ages 25-74, they looked at nine independent variables (including baseline health status according to the survey of 1982-1983; age at baseline; gender; type of residence; geographical region of domicile; and socio-economic status as indicated by level of education). As expected correlations were found between perceived poor health and all of the variables, with an influence in the expected direction. For example, “poor education, increasing age, and a low degree of urbanization” all predicted poorer perceived health.

Because of the correlations found in the first analysis between simple attendance at cultural events and longevity, in this second study, the researchers constructed a “cultural attendance index”. The index was based on number of reported visits to the cinema, theatre, concerts and live music performances, museums and art exhibitions and used to test the hypothesized link between attendance and perceived health.

The analysis of the interview results (eight years apart) indicates those who changed their cultural activities from the first occasion to the second also changed their perceived health. Those who became culturally less active between the first and second interviews, or those who were culturally inactive on both occasions ran a 65% excess risk of impaired perceived health compared with those who were culturally active on both occasions. In addition, those who changed from being culturally less active to being culturally more active improved their level of perceived risk to essentially the same as that of those who were culturally active on both occasions. (Johansson, Konlaan, Bygren 1)

The authors speculate about several known mental and physical mechanisms, which reduce tensions, strengthen the immune system, and protect against depression, which could account for a positive effect. They also suggest: “Attending cultural events widens a social network and gives the feeling of belonging to a group, and this in itself could be the important determinant of survival.” (Bygren, Konlaan, Johansson 2) While a causal connection cannot be made on the

basis of these statistical analyses, the strong correlations shown led the authors to conclude this is a fruitful line of research to pursue.

3.4.2 Impact of Live Arts Experiences on Health and Wellness – Spencer

Work undertaken in the United States may shed further light on the reasons for the correlations identified by the Swedish researchers cited in the previous section. An organization which provides live arts experiences in medical facilities, Hospital Audiences, Inc. (HAI), has been seeking explanations for the positive impacts observed as a result of their live arts performances. They have also been comparing the apparent impact of live performances to that of exposure to the arts that is technology mediated – received through film, video, television or via the internet. With assistance from the U.S. Center for Mental Health and the Pfizer Medical Humanities Initiative, the organization has held a symposium, conducted extensive interviews and compiled recent research it thinks is relevant.

HAI's monograph on the subject, "Live Arts Experiences: Their Impact on Health and Wellness", explores the relationships between recent research on the mind / body connection and the impact of the arts and summarizes interviews with a number of medical doctors, psychologists, and other health professionals interested in the impact of live arts performances. One of the major lines of exploration in this monograph are the mechanisms through which the mind, including emotions, affect the body and how live arts affect the mind and emotions, and thus also the body.

Exploration of mind-body connections and the ability of each to affect the other has been intensively explored in recent decades in western countries by those interested in approaches to health and wellness commonly referred to as "alternative", "complementary", or "holistic." For several thousand years, the integral nature of mind and body has been part of the core of knowledge / belief of many eastern approaches to wellness and the treatment of disease states, including Traditional Chinese Medicine, Ayurvedic Medicine and Tibetan Medicine.

Recent investigations by mainstream North American scientists are providing evidence within the tenets of the western scientific paradigm that the mind, emotions and body have far reaching impacts on each other. Using a variety of investigative tools, including new techniques of brain imagery, scientists are identifying a host of biological mechanisms that can turn a thought, belief or desire into an agent of change in cells, tissues and organs. (Blakeslee qtd in Spencer 45) According to Dr. Howard Fields, a neuroscientist at the University of California at San Francisco, *"We are misled by dualism or the idea that the mind and body are separate. A thought is a set of neurons firing which, through complete brain wiring, can activate emotional centers, pain pathways, memories, the autonomic nervous system and other parts of the nervous system involved in producing physical sensations."* (qtd in Spencer 46)

A study undertaken by the Mayo Clinic in Rochester, Minnesota, reported in 2000, provides an illustration of the impact mental states can have on physical and mental health. Comparing the results of a personality test (Minnesota Multiphasic Personality Inventory, MMPI) taken 30 years previously by participants, with their subsequent mortality rates, the study found those who scored as pessimists had a 19% increased risk of pre-mature mortality. The lead author on the study, Dr. Toshiko Maruta, concluded: "[The study] confirmed our common-sense belief. It tells us that mind and body are linked and that attitude has an impact on the final outcome – death." (Maruta 2000 140-143).

In follow-up research reported in 2002, Maruta et al looked at the association between the original MMPI scores and self-reported health status 30 years later (participants are currently approximately 60 years old). Classifying participants' scores into "optimistic", "mixed" or "pessimistic" groups, they found those in the optimistic group had a 50% lower risk of premature

death than those in the mixed category. Those with pessimistic scores were associated with poorer physical and mental health in all eight of the physical and mental health areas of questioning. Conversely, those in the optimistic group had a self-report of “fewer limitations due to health; fewer problems with work or other daily activities as a result of physical health; less pain and fewer limitations due to pain and, conversely, better personal health; feeling more energetic most of the time; performing social activities with less interference from physical or emotional problems; fewer problems with work or other daily activities as a result of emotional state; and feeling more peaceful, happier, and calmer most of the time.” The researchers concluded from the two studies that “optimists report better physical and mental health-related functioning 30 years later and experience better survival.” (Maruta 2002, 752)

So how does viewing live arts performances contribute to optimism or other mental states that contribute to healing and wellness? Michael Jon Spencer, the executive director of HAI, postulates a number of different mechanisms, based on his research and interviews, primarily revolving around the expression and balancing of emotions, the release of residual or accumulated tensions, the reduction of isolation and loneliness, and the establishment or strengthening of feelings of social connection.

Expression and Sharing of Emotions

One of the most salient features of a live arts experience is the presence of an audience, which results in a sharing and intensification of emotions and a sense of connectedness with both the audience and with the art. (Spencer, 51) Dr. David Siegel, M.D., a psychiatrist at Stanford University, suggests:

“Art can provide a socially sanctioned way to have an emotional experience . . . to say ‘it’s okay, it’s normal to do it.’ You turn it on and you turn it off. You walk out of a theatre, and you’ve done it. That’s one way in which groups are very helpful. . . . There’s something about shared emotions that facilitate a sense of social connection. Even if you are alone and anonymous, you do have a sense of a kind of common emotional experience. It’s different from sitting alone in your living room watching a videotape.” (qtd in Spencer, 51)

Dr. Don Ruskin, M.D., a psychiatrist at the University of Toronto, expresses a similar view when describing the experience of being part of an audience:

“The individual’s response is further increased by the group itself which magnifies, stimulates, may exaggerate through either their silence, their laughter, their tears, or in just the way their bodies may be moving kinesthetically. . . . Thus, in our modern audience, a person present by themselves, may still feel connected by this sense of group involvement.” (qtd in Spencer 51)

Balancing of Emotions

To some, the benefit of an art experience is the mere fact that it generates an emotion, any emotion, which can be used by the spectator / participant. It is both the expression and balancing of emotions that can be beneficial to health, as Dr. Nicholas Hall, a psycho-immunologist, suggests:

“We all need a balance of emotions with an emphasis on a certain amount of excitement. If a person is spending a huge amount of energy all day, they are quite likely to become burnt out as a result. But the opposite scenario can also occur: a person who works at a very boring, tedious job can also suffer burn-out as a result of too little energy expenditure. We need a certain amount of emotional excitement in our lives to counterbalance the boredom. At the same time we need a certain amount of tranquility to prevent the emotional excitement from crossing into the realm of anxiety. The role of the arts is to enable people to create those changes in mood.” (qtd in Spencer 48)

Hall points to music, especially, as an instrument that people can and do use to evoke and balance their emotions.

Tension Reduction

A major aspect of the experience of art is an arousal and relief of tension in the spectator. Unlike the repetitive or chronic sources of stress that produce tensions in people's everyday lives, the tensions evoked by a work of art or performance tend to be varied and multi-dimensional. Researchers have hypothesized that the tensions evoked by the art absorb and combine with residual tensions from other sources in the spectator's body. As the specific tensions evoked by the art are resolved through the spectator's response to the performance or work of art, the residual tensions that were previously held in the body are also resolved. The resolution / release of the tension is generally attended by pleasure and a feeling of relaxation (Spencer 50 & 53) Such reduction of tensions and enhancement of feelings of pleasure and relaxation are one means of reducing or appropriately managing stress -- which is clearly associated with stronger or enhanced immune functioning in the body.

Reduction of Isolation and Loneliness and Strengthening Social Connection

The multi-dimensional aspects of viewing or experiencing art are clearly illustrated by the variety of ways in which being involved with a cultural event or a work of art (in any medium) can reduce isolation and loneliness and establish or strengthen feelings of social connection. The enjoyment of a cultural event or performance in the company of others is an obvious way to share enjoyment and relaxation and to stimulate communication – whether about the work or performance at hand or more intimate subjects such as personal likes, dislikes, aspirations, memories, problems, worries, etc. Such disclosure of thoughts and feelings is a key element in effective social support and feelings of connection.

Solitary enjoyment of a work of art or performance can also reduce feelings of isolation and contribute to a feeling of connection in two ways. The first is through the sense of shared emotions / experience in an audience, as described by Drs. Siegel and Ruskin above. The second is through the feeling of intimacy created by the art itself, a sense of connectedness with the creator of the art. Dr. Stanley Greben, M.D., of the University of Toronto points out:

“When I am moved by a performer, I feel ‘he must understand me’, just as Mozart understood me. Though I live many years after he died, he touches my heart, through his compositions, through the performer. Mozart (metaphorically speaking) is like me, and if he isn’t, at least he knows about people like me because he can so communicate with me. The real experience of intimacy is with the art and the artist. They move me. . . . Anybody who moves me, knows more about me than someone who doesn’t move me. . . . He’s addressing the deepest portion of my humanity through his art.” (qtd in Spencer, 58)

Taking Action and Wellness

Another perspective on the possible connections between involvement in live arts and wellness comes from Dr. Steve Suter, Ph.D., a professor of psychology at California State College. In a book published in 1986, he describes wellness as a long term process that is “characterized physiologically, by resistance to disease with optimum functioning of the immune system; psychologically, by a potential for growth or self-actualization, and an overall sense of subjective well-being or satisfaction with life; and behaviorally, by a feeling of competency or self-efficacy.” In an interview with Spencer a decade later, he indicated he would add emphasis on action to his earlier definition – seeing taking action, acting on the world as an essential element of wellness. He suggests that reaching out for stimulation is part of pursuing growth or self-actualization (a psychological aspect of wellness) and that requires more than sitting in a room, hitting the button on a remote. In his view it requires action to go to a concert or other live performance, and to interact with the live arts. (qtd in Spencer, 42)

3.5 Key Determinant #3 -- Education

Health Canada research shows that health status improves with level of education. It asserts that education contributes to health and prosperity by equipping people with knowledge and skills for problem solving, helps provide a sense of control and mastery over life circumstances, and improves people's ability to access and understand information to help keep them healthy. Health Canada also suggests that "active living and the provision of opportunities for lifelong learning may be particularly important for maintaining health and cognitive capacity in old age. . . . studies on education level and dementia suggest that exposure to education and lifelong learning may create reserve capacity in the brain that compensates for cognitive losses that occur with biological aging."

3.5.1 Research from the United States

Even a quick dip into the American literature on the relationship of education / learning and the arts reveals an avalanche of material in the last decade demonstrating the power of education in the arts to reach at risk or difficult to reach children and youth; to develop a wide range of skills that seem to be readily transferable to other disciplines and life circumstances; and to provide powerful grounds and tools to build effective communication with others.

James S. Catterall and other contributors in *Critical Links: Learning in the Arts and Student Social and Academic Development* summarize the findings of 62 research studies. They identify 84 separately distinguishable, valid effects of the arts among groups of children who benefit. Areas where the arts pay off include "in basic reading skills, language development, and writing skills . . . focus and concentration, skills in expression, persistence, imagination, creativity, and inclinations to tackle problems with zeal. In addition, a wide range of social skills accompanies learning in the arts and engagement in arts activities . . . positive social behavior, social compliance, collaboration with others, ability to express emotions, courtesy, tolerance, conflict resolution skills, and attention to moral development." (Catterall 2)

A frequently quoted finding in the literature is that of the College Entrance Examination Board in the United States. It announced that in 1993 students who studied arts and music scored significantly higher than the national average on the Scholastic Aptitude Test (SAT). Students who participated in acting, play production, music performance and appreciation, drama appreciation, and art history scored an average of 31 to 50 points higher for the math and verbal sections. The Board also stated that students with four or more years of arts study tend to score significantly higher on the SAT than those with less coursework in the arts. (Dickinson 5) In 1995, the differences on SAT scores for those who studied the arts for more than four years were reported to be 59 points higher on the verbal and 44 points higher on the math portion than the scores for students with no coursework or experience in the arts. (Eloquent Evidence 3)

"In 1995, the United States Department of Education reported in *Schools, Communities, and the Arts: A Research Compendium*, that 'using arts processes to teach academic subjects results not only in improved understanding of content but it greatly improved self-regulatory behavior.'" Researchers observing integrated arts lessons in all major subject areas in fourteen New York City elementary and secondary public school classrooms came to similar conclusions, finding that "student behavior improved strikingly in such areas as taking risks, cooperating, solving problems, taking initiative for learning, and being prepared. Content-related achievement also rose."

Richard W. Riley, while the U.S. Secretary of Education, summarized his view of education and the arts: "The process of studying and creating art in all of its distinct forms defines those qualities that are at the heart of education reform in the 1990's – creativity, perseverance, a sense of standards, and above all, a striving for excellence." (Eloquent Evidence 7)

Champions of Change

In 1999, the Arts Education Partnership, an American national coalition of arts, education, business, philanthropic and government organizations, published *Champions for Change: The Impacts of the Arts on Learning*. It is a compilation of studies by seven teams of leading researchers from, among others, the Imagination Project at the University of California Los Angeles, the Carnegie Foundation for the Advancement of Teaching at Stanford, the North Central Regional Educational Laboratory, and Harvard University's Graduate School of Education. The report concludes: "While learning in other disciplines may often focus on development of a single skill or talent, the arts regularly engage multiple skills and abilities. Engagement in the arts – whether the visual arts, dance, music, theatre or other disciplines – nurtures the development of cognitive, social and personal competencies."

Although the Champions of Change researchers conducted their investigations and presented their findings independently, a remarkable consensus exists among their findings, which include the following:

- *The arts reach students who are not otherwise being reached. The researchers found that the arts provided a reason, and sometimes the only reason, for at-risk youth to remain engaged with school or other organizations.*
- *The arts reach students in ways that they are not otherwise being reached. 'Problem' students often became the high-achievers in arts learning settings. Success in the arts became a bridge to learning and eventual success in other areas of learning.*
- *The arts connect students to themselves and each other. Creating an artwork is a personal experience. The student draws upon personal resources to generate the result. The student feels invested in ways that are deeper than simply 'knowing the answer.'*
- *The arts transform the environment for learning. When the arts become central to the learning environment, schools and other settings become places of discovery. Figurative walls between classrooms and disciplines are broken down. Teachers are renewed. Even the physical appearance of a school building is transformed through the representations of learning.*
- *The arts provide learning opportunities for the adults in the lives of young people. With adults participating in lifelong learning, young people gain an understanding that learning in any field is a never ending process. The roles of the adults are also changed: In effective programs, the adults become coaches, active facilitators of learning.*
- *The arts provide new challenges for those students already considered successful. Boredom and complacency are barriers to success. For those young people who outgrow their regular learning environments, the arts can offer a chance for unlimited challenge.*
- *The arts connect learning experiences to the world of real work. The world of adult work has changed, and the arts learning experience shows remarkable consistency with the evolving workplace. Ideas are what matter, and the ability to generate ideas, to bring ideas to life and to communicate them is what matters to workplace success." (qtd in Schwarzman 2-3)*

Shirley Brice Heath – Arts and Sports

An often quoted researcher on the subject of arts and learning is Shirley Brice Heath, author of "Imaginative Actuality: Learning in the Arts During Nonschool Hours", work undertaken for the Carnegie Foundation for the Advancement of Teaching. Describing herself as a very cautious,

but very curious, researcher, she became, in her words, a “full-time cheerleader for the arts” after more than 10 years of a national investigation of a wide range of youth-development program strategies in the United States, particularly athletics programs. She concluded that children involved in after school arts programs have better adult outcomes than those involved in sports or community service.

In an interview with Mat Schwarzman she describes her experience.

“There is powerful learning going on in sport-based programs. Through my work I have met many of the leading youth developers in the country, and I can tell you many of them are coaches. They are tough and they are terrific. I must have visited hundreds, maybe a thousand sports-based programs.

But then I began spending time at community-based organizations and some of them had arts programs for young people. What began as a story here and there evolved into an undeniable pattern: There was learning going on here that shouldn't be happening, that couldn't happen in any other type of program that I'd seen.

I became aware of an enormous amount of sophisticated learning that was going on in places where it shouldn't be. . . . When I pulled back and began looking for what was different about these arts-based learning environments, it became clear. Athletics programs are built on a fixed set of rules and a limited set of actions. In these environments, someone older is always going to be the authority.

In arts-based environments, young people draw upon many sources of authority. They bring in television, their family, their teachers, their opinions, anything, and they are able to do so as authorities themselves. Many youth programs talk about helping young people “find their voice,” but it's really only the arts that delivers on that promise.” (Schwarzman 3)

An illustration of Brice Heath's last point is provided by one of the organizations in a collaborative inquiry group of artists and youth educators in the San Francisco area. It started as an athletics program, designed around a basketball team “because that's how we could best get youth in the door.” Staff began to add things like desktop publishing and video production workshops. Over time program staff realized “sport may bring them in, but the arts were the only way to keep them.” (Schwarzman 4)

Brice Heath also describes art as a “rehearsal for developing a wide range of other social skill sets: family member, citizen, student, worker and human being. Through many of these arts programs, young people have their first opportunity to literally ‘cast’ themselves as professionals and adults.” (Schwarzman 7)

3.5.2 Recent Canadian Research – Learning Through the Arts

Recent research on the relationship between the arts and learning in Canada seems to parallel the findings in the United States. Initial findings of a three year study of the effects of an arts education program carried out in schools in six Canadian locations (Vancouver, Calgary, Regina, Windsor, Cape Breton and Western Newfoundland) show positive affects.

A program started by the Royal Conservatory of Music called Learning Through the Arts (LTTA) repositions the arts in schools by offering students a way to learn all subjects through the arts. The program partners generalist classroom teachers with musicians, dancers, songwriters and actors to develop elementary education curricula. The artists then work directly with the students, using approaches such as teaching math through visual art, language through song, science through dance, and social studies through storytelling. Participating elementary schools

have run the program for three years, involving all students in grades one to six and all teachers in those grades.

Dr. Rena Uptis and Dr. Katharine Smithrim of the Faculty of Education at Queen's University released in November, 2002, the results of a comparison of students in grade six in the LTTA schools with those in control schools. The control schools were matched for size, location and socioeconomic status. A portion of the control schools also had a school wide initiative underway of a different type – an initiative focusing on the integration of technology across the curriculum.

When the grade six students in the LTTA schools were compared with those in the control schools after the initial three years, the researchers found the following:

- LTTA students scored as well or better than the students in the control schools on tests of mathematics and language skills, leading the researchers to conclude that involvement in the arts did not come at the expense of achievement in these fundamental skills.
- LTTA students scored significantly higher (equivalent to 11 percentile points) on mathematical tests of computation and estimation than those in the control schools.
- LTTA students' mean scores for writing were slightly higher than scores for students in the control schools.
- The benefits of the LTTA program occurred for children of all socioeconomic classes.
- Involvement in the arts was perceived by students, teachers, parents, artists and education administrators to lead to greater engagement (meaning wholly involved) at school. In interviews and on surveys, all talked about how the arts engage children in learning, referring to emotional, physical, intellectual, and social commitment. Thousands of comments were reported on joy, attentiveness, and motivation at school. As one grade 6 student commented:
"Music brightens up the mind. When you learn something new, you feel good and that makes you feel good in other subjects like math."
- The overall evidence suggests students who engage in the arts are more likely to enjoy school.
- Ninety percent of parents in both LTTA schools and control schools reported arts motivate their children to learn. Fewer than 1% of parents questioned the importance of arts programs.
- Parents in both LTTA schools and the control schools attributed many benefits to arts education beyond increasing their children's ability in other curriculum areas. These included the following:
 - > greater incentive to attend school;
 - > increased confidence and self-esteem;
 - > increased social skills as children become less shy and more outgoing;
 - > greater ability to express emotions; and
 - > opportunities for children to thrive in school who lack interest or ability in other subject areas.

Backed by major corporate sponsors, Learning Through the Arts is now in 171 schools in Canada. It is also in schools in New York City and Stockholm and is expected to be in London,

England within the year. Research on the affects of the program continue, with further results expected from Uptis and Smithrim in April of 2003.

Citing both their own earlier research and that conducted by a variety of authors in other countries, Uptis and Smithrim conclude that justification for the arts in schools should ultimately be made in terms of the unique contributions of arts education and not primarily on the basis of its contribution to achievement in other subjects. They report research documenting the following intrinsic benefits of arts education: developing the capacity for attention to detail, developing the imagination; greater motivation to learn generally; increased student creativity; experiencing the joy of creativity; lower drop-out rates; increased social skills; developing the ability to make judgments in the absence of clear rules; and learning ways of expressing thoughts, knowledge, and feelings beyond words. (Uptis, Smithrim 6-7)

3.6 Key Determinant #6 - Supportive Physical Environments

Health Canada argues that physical environments can have both positive and negative impacts on health. Besides the known deleterious effects of exposure to air borne contaminants and low indoor air quality, they also recognize that the “design of communities and transportation systems can significantly influence our physical and psychological well-being”.

“There is growing recognition that personal life choices are greatly influenced by the socioeconomic environments in which people live, learn, work and play. . . . Interventions that support the creation of supportive environments will enhance the capacity of individuals to make healthy lifestyle choices in a world where many choices are possible.”

3.6.1 Experience in the United Kingdom

As we have seen, in the United Kingdom, arts projects are explicitly used to support urban regeneration efforts. One of the roles they play is in “facilitating consultation and partnership between residents and public agencies. Arts projects can nurture local democracy. They encourage people to become more active citizens, and strengthen support for local and self-help projects.” Participatory arts projects also have an important role in developing local identity and belonging. (Matarasso, 1997, ex.sum) On the questionnaire Matarasso used among participants in art projects in all the cities studied, it was found that among adult participants, “86% want to be involved in further projects; 40% feel more positive about where they live; and 63% have become keen to help in local projects.”

As part of its on-going research on the social impact of the arts, Comedia undertook a baseline study of the community art sector in Belfast. The research used a “series of indicators to establish benchmarks for projects in relation to community development and regeneration, and for the impact of participation on individuals.” It included over 50 projects, representing all kinds and scales of community based arts work. The findings echoed those of the earlier national study (“Use or Ornament”), including participatory arts utility in urban renewal. Matarasso concludes: “[Community arts] in Belfast is a significant force in community development, urban regeneration, and personal change. It builds organizational capacity and supports local self-reliance. It contributes to the city’s changing self-image and to social cohesion. It secures huge levels of voluntary commitment and is cherished by the thousands of people involved. . . . [The] report advocates discussion of [its] findings among organizations concerned with community development and regeneration, arguing that they provide solid evidence that participatory arts activity is an essential element of community vitality.”

One of the conclusions in Coalter’s review of the social impacts of arts projects / programs in the United Kingdom is that: “Arts, by facilitating involvement, communication and the exploration of meaning, have the potential to assist in the essential processes of consultation about local and regional regeneration policies.” (Coalter 32)

Matarasso also found that imaginative use of arts techniques in involving communities in decisions about the nature and direction of local development / redevelopment strategies was effective in facilitating greater involvement and helping residents and councils to work together more effectively. He cites the experience in Portsmouth, England, where arts projects “. . . have enabled the City council to forge new partnerships with a wide range of community organizations. For example, one arts project opened new lines of communication with Vietnamese, Bangladeshi, African, Indian and other community associations . . . the role of the arts has been vital to building partnership between community and council. . . in Batley the arts have made an invaluable contribution to facilitating the regeneration process itself, reducing friction and making it run more efficiently.” (Matarasso 1997 43)

3.6.2 Experience in the United States

In the United States, Strom reports investment in significant cultural facilities is often viewed as an economic generator and used to transform or revitalize moribund downtowns, obsolete factory districts, and decaying waterfronts. She identifies Philadelphia's Kimmel Centre for the Performing Arts, the New Jersey Performing Arts Centre, and the Massachusetts Museum of Contemporary Arts as examples of cultural construction projects funded as part of state and local economic revitalization programs. (Strom 20-21)

Strom also reports that Seattle business leaders credit the construction of two major arts facilities downtown with the city's palpable revival, including the establishment since 1990 of several major retail complexes and a 40% increase in the number of people living downtown. (Byrd qtd in Strom 21). In Roanoke, Virginia centre city merchants sought new uses for an abandoned farmers' market where drug sales and prostitution had become the dominant activities. They bought and renovated a 1914 warehouse and created the Centre in the Square, which became home to five cultural organizations. This cultural development provided the anchor for the revitalization of Roanoke's central shopping district that has attracted an additional \$350 million in private investments. (Strom 22).

These and other experiences reported in both the United Kingdom and the United States suggest that arts projects have a vital role to play in creating and maintaining supportive physical environments. They have been used to stimulate urban regeneration and renewal; they have been shown to be highly effective in facilitating the involvement and commitment of residents in community renewal; and investment in cultural facilities has been used to attract other investment to revitalize deteriorating areas.

3.7 In Summary

This section of the paper began by setting out key determinants of health as defined by Health Canada and exploring a number which seem to be central to achieving and maintaining a high level of health and wellness. Research and reported experience in Canada, the United Kingdom, the United States and elsewhere seem to provide clear evidence that participation in a variety of arts and cultural activities can support and positively contribute to these key determinants – helping both individuals and communities to achieve a sense of well-being and health.

The community arts have been found in the research and experience reviewed to make substantial contributions to key individual and community determinants to health through many influences including:

- fostering a greater sense of connectedness to others;
- reducing social marginality;
- reducing the sense of fear, isolation or anxiety;
- developing a more positive, optimistic outlook on life;

- developing increased confidence, and self esteem;
- providing a sense of personal and community achievement;
- supporting the acquisition of new skills, including those contributing to greater employability; and
- enhancing motivation.

Being a member of an audience in live arts performances, going to museums and galleries, and being involved in other cultural events is also being shown to contribute to individual health through a variety of mechanisms including:

- supporting the expression and sharing of emotions;
- providing a way to balance emotions;
- reducing tensions;
- reducing isolation and loneliness;
- strengthening the sense of social connection; and
- taking action, reaching out for stimulation and growth by going to a performance or cultural event.

With respect to the key determinant of health that relates to supportive physical environments, the research reviewed indicates the arts also make significant contributions. Community arts and cultural facilities both play an effective role through such influences as developing community identity and pride, through stimulating an interest in becoming involved in community projects; through facilitating the involvement of residents in decisions about the regeneration or renewal of their neighbourhoods and communities. Investment in cultural facilities has also been successfully used to stimulate physical redevelopment and attract major investment in the renewal of deteriorated areas.

The literature on the relationship between the arts and education in a school setting was found to be voluminous and inclusive of a variety of ways that the arts are taught – both as separate subjects and as a vehicle for teaching other subjects. However the students are involved in the arts, the research in the United States and Canada support a strongly positive impact on achievement levels and thus on a health determinant that is known to be strongly correlated with long term well-being and success. The arts have been found to make significant contributions to students of all levels of ability, and are particularly helpful to students at opposite ends of the spectrum of ability. The arts are able to reach students who are not otherwise being reached, and to provide an arena for success that can provide a bridge to success in other subjects for students who are struggling in school. They also can provide new and unlimited challenges for those students who are already successful in school and becoming bored.

In addition, engagement in individual and group arts activities develops a wide range of personal and social skills that are essential for success in personal, community and work related relationships. Thus, the arts foster a range of abilities that are all correlated with health and well-being.

4. Special Relationships – Elderly and Youth-at-Risk

In the research conducted for this paper, one of the factors that stood out strongly from the literature reviewed and interviews conducted was the capacity for arts therapy and involvement in the arts, either as a participant or a spectator, to reach and engage disadvantaged populations, minorities and people at risk. This section briefly illustrates some of the ways that engagement in the arts can be of assistance to the health and well-being of two groups, the elderly and youth-at-risk.

4.1 Arts and Youth-at-Risk

One of the most striking and successful areas of the intentional social use of both community and more formal arts is in reaching youth-at-risk and youth who often do not respond to other types of initiatives. Virtually every type of artistic activity seems to have been used to attract and engage youth.

The power of the arts to involve and assist the disadvantaged was touched on in section 3.5 on the relationship between arts and education. Some of the research cited in the Champions for Change initiative of the U.S. Secretary of Education specifically looked at the issue of socioeconomic status.

“The researchers analysed differences in achievement and attitude for 25,000 students over a ten-year period, treating students who were disadvantaged in terms of socioeconomic status as a separate group. For all students, but particularly for those in the low socioeconomic status group, academic performance, attitudes and behaviour were positively correlated with long-term involvement in the arts. For example, for low socioeconomic status students, 43.8% of students highly involved in the arts scored in the top two quartiles in reading, compared to 28.6% for students with little or no arts engagement.” (Catterall, Chapleau and Iwanaga qtd in Uptis, Smithrim 6)

Earlier work by Catterall indicated that students with high levels of arts involvement have lower dropout rates than those with low levels of involvement and are more likely to be involved in community service. As another Champions of Change researcher summed it up: One of the critical research findings is that the learning in and through the arts can help “level the playing field for youngsters from disadvantaged circumstances.” (Fiske) Given the correlation between education level and health, such leveling for disadvantaged youth can potentially contribute to their lifelong state of well-being, a contribution that is priceless for the individuals affected and potentially significant with respect to demands on the health care system.

Recent experiences in the Canadian founded Learning Through the Arts™ program provide illustrations of what is being done in schools.

“In Windsor, Ontario, a dance artist worked with Grade 1 teachers to create science materials on the life cycle of the butterfly and the frog. One child, who had been perceived as a silent ‘special needs’ student (and therefore ‘unreachable’), joined in and astounded the teacher with his thorough grasp of complex scientific matters. His movements had such grace and sensitivity, his teacher saw him with new eyes.”

“In a Calgary school, a singer/songwriter found a way to encourage a Grade 4 boy with difficulty in math. He suggested the boy consider the African origins of the blues as a way of dealing with life’s difficulties. The whole class joined in writing a ‘Math Blues’ – timetables with rhymes about math. On the boy’s next math test, he earned a perfect score.”

“In New York City, the program (LTTA) went into an East Harlem school that had been designated as a ‘failing school’. Here singer/songwriter artists encouraged Grade 4 social studies students to warm up their bodies and minds with focused breathing exercises.

Throughout the year and into the next, those same breathing exercises had the unexpected benefit of calming anxious students who were preparing for tests. And the artists who worked with this so-called 'failing school' found that its students were not only not failing – many were gifted composers and songwriters.” (Simon)

Arts are being used all over the world to assist youth, minorities, and various disadvantaged groups to explore issues and circumstances of concern and to communicate both within groups and among groups about their concerns.

- Matarasso (1997 47) writing about activities in the United Kingdom “emphasises the potential of arts projects for communicating with other young people – one group ‘argued that they were reaching an audience others could not access, because the message was coming from within the peer group’.” (qtd in Coalter 13)

- In The Tanked Up Theatre Project in Lochaber, Scotland, “young people used drama to explore issues relating to the use of drugs and alcohol. Over an intensive period the participants described how this experience had made them feel more confident and better able to communicate. ‘I forgot to feel embarrassed’ said one participant. The opportunity to discuss issues with each other through drama was also found to be valuable. ‘The ideas come from us . . . we learn better from our mates’”. (Shaw 5 qtd in Coalter)

The ability of involvement in the arts to address multiple dimensions of a young person’s life, experience and development is illustrated by TeenStreet, a “gang prevention and jobs program” run by Chicago’s Free Street Theatre. Free Street is an avowedly outreach organization that “uses the performing arts to enhance the literacy, self-esteem, creativity and employability of populations consistently excluded from mainstream cultural programming” [in the United States]. TeenStreet’s summer program (started in 1992) assembles companies of young members who write and rehearse their plays for three weeks, then perform for another three, presenting 20 minute pieces in Park District day camps, YMCA’s and community centres all over Chicago. The experience, like many other drama projects with young people, provides the participants with the opportunity to express themselves, to be seen and heard by others, and to be empowered in that process.

However, TeenStreet offers an additional dimension. The director insists on a high quality professional show, which requires discipline and perseverance that many low-income teenagers have little opportunity to develop. The stimulus for that discipline is that the theatre program is a job. Performers are paid by the hour and can be docked (up to a week’s pay) for failing to meet obligations or refusing to cooperate with their group. For many of the youngsters, it is the first time that discipline, teamwork and commitment have been demanded of them. So the program contributes directly to the employability of the youth. As a paid job, TeenStreet attracts youth that might not feel they have artistic talent, or who wouldn’t be inclined to pursue theatre as an “extracurricular” activity for social and monetary reasons. It attracts teens “closer to the edge” in the director’s words. (Krasnow)

This capacity of the arts to engage hard to reach youth is illustrated by a music program undertaken with street kids. Those involved were youth who did not participate in organized activities, and, although they recognized each other on the street, they report they didn’t really connect until they made music together. They indicated the results of learning music, rehearsing together and then presenting to others in a concert, resulted in their learning to listen to each other, to negotiate, and to work together. The results of their efforts also meant they had an achievement, something to share and contribute to others. In the process of learning how to make music together, they also developed something rare in their lives -- a positive relationship with adults – their music teachers. (Music Therapy)

In the United States, local arts agencies and community service groups have become increasingly involved in programs that link the arts to other community improvement targets – including crime reduction and youth-at-risk. In 1997, 82% of urban arts agencies had youth programs, up from 20% in 1986. “Local decision makers are discovering that supporting an arts program is more productive and less costly than adding officers to the police force.” (Mulcahy qtd in Strom 34-35) One example is a U.S. Department of Justice funded theatre program (modeled on San Francisco’s Midnight Shakespeare) serving youth with histories of truancy and delinquency in three cities. “[Evaluation by Justice] found that participants in these programs were all significantly less likely to become involved in criminal activity – in some cases by factors of two or three – than members of the control group.” (Americans for the Arts qtd in Strom 35-36).

The ability of the arts to attract and engage youth-at-risk has been documented by numerous researchers. Shirley Brice Heath and others identify one of the factors that make arts activities attractive to these youth is the fact that they involve risk taking – doing something new, extending oneself, in many instances putting oneself “on view” in a public performance. For youth attracted to risk, arts based programs provide a venue for testing themselves in a safe environment.

4.2 Arts and the Elderly

Earlier sections of this paper have touched on the degree to which one is socially connected, and the degree to which one feels optimistic about one’s life circumstances can significantly impact on one’s level of health and longevity. This seems to be particularly true for the elderly. A study conducted by the Department of Health and Social Behavior of the Harvard School of Public Health in Boston, Mass., determined that social disengagement is a severe risk factor for cognitive decline in elderly persons. (Bassuk, Glass & Berkman qtd in Spencer, 60) Another study investigating the affects of activity on aging arthritis sufferers found that solitary and physical activity had minimal influence on well-being, while social activity had a substantially positive influence. (Zimmer, Hickey and Searle qtd in Spencer, 60) Since depression and loss of mental functioning often mean the elderly must leave their homes and be cared for in institutional settings, maintaining a positive frame of mind and preventing or slowing cognitive deterioration can avoid significant health care costs.

Two Swedish studies on the uses of visual arts with the elderly illustrate the contributions that even very simple involvement with art can make in improving well-being and assisting with communication with the elderly. One controlled study investigated the “effects of a non-directed use of pictures as a possible modality for improving well-being in elderly women”. Participants were randomly allocated to an intervention group (where visual art was used) and to a control group. Participants in both groups were reported to have the same amount of social contact with and attention from the experimenter. However, there was improved well-being in the intervention group, “an improvement not seen in the control group.”

“The quantitative analyses of the results reveal a significant improvement of the positive mood parameters happiness, peacefulness, satisfaction and calmness and the negative parameters low-spirited, unhappy and sad. Systolic blood pressure decreased and an improvement was seen in the subjects’ medical health status with regard to reported dizziness, fatigue, pain and the use of laxatives.” (Wikstrom, Theorell and Sandstrom)

Another investigation by Wikstrom (“Visual Art Dialogues . . .”) was aimed towards constructing a visual art program for communication with elderly in a senior’s apartment building, with a view to contributing to nursing management. Pictures of works of art were used in a controlled intervention study with participants of an average age of 82.6 years. In the intervention group, the investigators reported there was an inexhaustible source of topics to be discussed that

originated from pictures of works of art. In the control group, the dialogues dealt with daily events in the elderly person's lives.

Wikstrom describes the dialogues as follows: "In the visual art group the dialogues changed over time and caught increasingly more the elderly persons' experience and knowledge. The visual art dialogues were characterized by imagination and happiness, and there was an inexhaustible source of topics originating from pictures of works of art that were discussed in this group. . . . The dialogues [in the control group] were characterized by downheartedness, and it was difficult to find topics of conversation during the final phase of the studied period of time."

Conclusions from the study included: "The results indicated that the art programme was associated with an increased positive perception of the life situation in the visual art group, where there was no such effect in the matched control group. . . . Art dialogues stimulated discussions on a variety of topics that positively shifted the elderly persons' perception of their life situation Subjects in the art groups compared with subjects in the control group show a significant increasing structure, motivation, and emotional investment when they express thoughts and opinions."

One of the most interesting aspects of this study was the finding that the perception of their life situation for the elderly in the control group did not change over the studied period. Whereas, for the participants in the arts groups, not only did their perceptions change in a positive direction, but the changes persisted and tested as even stronger four months after the dialogues had stopped. Research previous to this study had shown that other interventions studied had an immediate post-treatment influence on participating elders' subjective well-being, but that the beneficial effects disappear within a month. (Okun, Olding & Cohn 1990 quoted in Wikstrom).

That the positive changes in their perception of their life situation not only persisted but increased over time for the elderly involved in the visual art dialogues (even though the dialogues had stopped) raises some compelling questions about the power of engagement with the arts to affect our well-being.

Recent research into the nature of the aged brain may shed some light on the power of the arts to contribute to the health of the elderly. Gene Cohen, in his book, *The Creative Age: Awakening Human Potential in the Second Half of Life*, documents recent discoveries in neuroscience that challenge conventional assumptions about aging. He cites studies that show that it is not the number of neurons that dictates brain function, but the number and strength of the connections between neurons. While the human brain does lose neurons throughout life, it does not lose the capacity for forming and deepening connections among the neurons. According to Cohen, studies indicate that between one's early 50s and late 70s there is an increase in both the number and length of branches from individual neurons in different parts of the brain that are involved with higher intellectual functioning. It seems for the brain to maintain connections among neurons, and to forge new connections, it needs to be challenged. So it would seem it is not primarily age that affects the brain adversely, but rather stagnation of the brain. Involvement in the arts clearly provides a way of challenging the brain, since it calls on the elder to learn new skills, discover new aspects of themselves, and find new ways to express and perceive the world. (Cohen qtd in Perlstein 2-3).

Involvement in the arts has another useful aspect when seeking ways of stimulating seniors; there is some form of artistic activity that can be engaged in by virtually everyone, whatever their physical limitations. The importance of engagement and the social connectedness that arts activities can provide is underlined by a study focusing on the mortality rates of frail elderly individuals in New Haven, Connecticut. This study, which involved the Harvard University

School of Public Health, the Rush Institute for Healthy Aging, and the Yale University School of Medicine, among others, revealed that “social and productive activities that involve little or no enhancement of fitness lower the risk of all cause mortality as much as fitness activities do.” (Glass, de Leon, Marottoli, Berkman qtd in Spencer 60).

4.3 Connecting the Generations

The Elders Share the Arts (ESTA) program in New York City is a strong example of the capacity of arts programs to address multiple social issues simultaneously and contribute to both individual and community healing. For more than 20 years, ESTA has been addressing the needs of both elders and youth through a variety of community arts-based programs, simultaneously helping the generations to connect, understand, and appreciate one another and healing cultural and ethnic divisions in neighbourhoods.

After experimenting with a number of different approaches over the years, ESTA developed the Generating Community program in 1991 in response to the concerns of cultures and generations coming into conflict. The program is designed to create a meeting ground, a place to talk, to create and learn together. The program has many variations, but at its base, it provides the groups a safe and creative way to explore their problems and concerns and together find solutions to them. Generating Community consists of a weekly workshop program that brings seniors in nursing homes, community centres, and senior centres together with youths ranging in age from pre-school to high school. The participants are trained in the skills of oral history, so they can produce the histories of both the elders and the youths.

The two groups then work together to turn their stories into theatre, storytelling or dance performances, or into murals, paintings, journal writing or poetry. Public presentation of the work, as a performance or exhibition, is the crucial community-building element of a project. Each project takes two years to implement fully and depends on three community groups working together: a senior group, a youth group, and an arts group. The impacts of Generating Community are manifold and include the following:

- addressing ageism;
- breaking down the isolation of the elderly;
- providing caring adults to encourage, reassure and mentor young people;
- developing enduring friendships across generations and cultural and ethnic differences;
- breaking down stereotypes and fears between members of different generations and cultural groups and thus building a greater feeling of safety in the community;
- providing role models for young people and opportunities for elders to pass on wisdom and skills to youth;
- developing surrogate grandparents for youth who have no access to their own;
- providing ways for seniors to feel needed, useful and creative;
- bringing generations and different ethnic groups together to learn and practice new skills, including practicing teamwork with decision-making and problem solving, and
- developing creative solutions to community issues and problems.

The reader will recognize that this single program addresses many of the key determinants of health as identified by Health Canada and many researchers around the world – developing a feeling of personal control and discretion to act and influence one’s circumstances; developing supportive social networks and that all important feeling of social connectedness; reduction of social marginality and increased inclusiveness; and opportunities for stimulating and challenging learning to keep the mind active. In the words of Susan Perlstein, the founder of ESTA: “Arts programs can create positive, invigorating, life-giving and life-sustaining activities that . . . make

those human connections. In a caring, connected community, people are more likely to stay healthy because they look out for each other.”

In the United Kingdom, Matarasso identifies similar dynamics. “The arts are also important means of bringing young and old together, and projects in Batley showed the value of these intergenerational contacts, especially in reducing anxiety [on the part of the elderly] about young people. There was also evidence that the community development aspects of participatory arts projects could help reduce fear of crime and promote neighbourhood security.” (Matarasso 1997)

5.0 Caring for the Caregivers / De-stressing and Supporting Health Care Professionals

No survey of the possible contributions of arts and culture to health and the health care system would be complete without at least a mention of the ways the arts are being used to support those who work in the system. Experiments with the use of a variety of ways of engaging with the arts in medical facilities indicate that the arts also have the capacity to assist the workers in the system, as well as the patients. Shortages of doctors and nurses, reduction of funding to health, and the turmoil and challenges created by restructuring of many aspects of the health care system are all contributing to chronically high levels of stress for health care professionals and workers. Increasing absenteeism, depression, burn-out, and departure of experienced workers from the health care system are problems urgently needing to be addressed.

There are parallel pressures on family members who are caregivers. Increasingly, adults are finding themselves over-extended by attempting to keep up with multiple responsibilities that may involve children, elderly parents or other relatives, and demands of their employment. With decreasing support and respite services in many jurisdictions, large numbers of Canadians are finding themselves facing personal burn-out with all the attendant consequences for their own health. Evidence suggests the arts can help caregivers; a few examples are summarized below.

A study underway at Chelsea and Westminster Hospital is intended to produce a “quantitative analysis and critical evaluation of the effect of the arts on patients, staff and visitors at the hospital.” The research includes “measurements of physiological responses taken from patients in the presence or absence of visual arts and/or live music, and tests to evaluate the responses of the immune system, variations in the level of some hormones, the stimulation of biological painkillers and the time of recovery of patients exposed to this integrated environment.”

Jermyn reports the preliminary data indicate that “two thirds of the staff, patients, and visitors who have participated in the study have felt that live performances significantly help to take their minds off immediate worries or medical problems, diminishing their stress level and changing their mood for the better.” (Jermyn 30)

A study published in the Journal of the American Medical Association in 1994 measured the effects of music-paced work on cardiovascular reactivity among surgeons. It concluded that surgeon-selected music was associated with reduced autonomic activity and was shown to improve performance of a stressful, non-surgical laboratory task in the study participants. (Lippin)

Starting in the early 1990’s, a collaboration between American choreographer Stuart Pimsler and his partner, Suzanne Costello, and health care workers, known as “Caring for the Caregiver”

was designed to offer a creative outlet for the stresses and complex emotional issues encountered by doctors, nurses, medical students, hospice staff, social workers, therapists, counselors and administrative personnel. Starting in Florida, the program has now spread throughout the United States and is also offered abroad. The Caring for the Caregiver program offers movement / expression workshops and commissioned performance works that provide caregivers with creative outlets for the emotional stresses faced in their work. The workshops begin with discussion and then move to exploration through movement and voice, memories and stories, and the concepts of support, trust and release. One health care provider described the work this way: "You ask us to seek out movement that comes from inside, that comes from an experience, or that comes from something known. When you ask people to do that, you don't get a trickle, you get a torrent."

Not only has this collaboration been of assistance to health care personnel directly involved, it has also created what many view as a new dance form in the performance works that have grown out of the collaboration. Audiences, which sometimes include other caregivers, report finding the performances deeply moving. For example, "Still Life with Rose" created in 1996 was performed by twelve caregivers from Columbus, Ohio, inspired by their personal histories. It focused on their relationships with their patients, as well as their rage, fear, pain and hopes about their workplace. It explored the caregivers' personal belief systems and coping strategies for surviving daily losses. (Pimsler 1,3,4) The performances appear not only to be therapeutic for those directly involved but also for their audiences.

6. Conclusions from this Preliminary Research

The work undertaken to produce this paper has looked at the tip of what seems to be a very large iceberg of research and experience exploring in many countries the rich and complex relationships among the arts and culture, and individual and community health and healing. While this preliminary research raised as many intriguing questions as it answered, the light it shed on the originating question seems quite clear. Are there contributions that the arts and culture can make to individual and community health and to the Canadian health care system? The answer seems to be a resounding "yes."

This preliminary research indicates there are a number of ways the arts can contribute directly to the effectiveness and potential sustainability of the existing health care system and to the well-being of the individuals who work in the system. It also suggests there may be a multitude of ways that arts and culture can contribute to the long term health and well-being of both individuals and communities and thus to avoiding future demands on the health care system.

6.1 Conclusions

This section briefly recaps major points made in the paper.

Creative Arts Therapies

The six formal branches of creative arts therapies are all being used effectively in many hospitals, other medical institutions, and communities to do the following:

- **Treat disease and illness**

All branches of creative arts therapies are being used successfully both to treat a vast array of illnesses and also to speed recovery from surgical and other medical procedures. Experience in other countries suggests that considering more extensive involvement of creative arts therapies in Canadian institutions has the potential to increase both the efficacy of treatment and to shorten hospitalization.

- **Avoid hospitalization**

Arts therapies have been used in Canada, especially with individuals suffering mental illnesses, to avoid more expensive forms of treatment, including hospitalization. Preliminary research suggests there are potentially many areas where arts involvement could be employed fruitfully to avoid or reduce the need for hospitalization and other expensive treatments.

- **Avoid or reduce medication**

Creative arts therapies, as well as engagement in a variety of arts including live performances, is being used successfully to alleviate pain, anxiety and discomfort. They are also used to reduce or eliminate the need for some medications, especially those used for pain relief and mood alteration. Avoiding or reducing the use of medications not only reduces pharmaceutical costs, it can also avoid adverse reactions to medications, with their possible attendant need for additional treatment.

- **De-stress health care professionals and other caregivers**

Arts therapies, and many other forms of engagement in the arts, are being used to assist health care professionals and workers to reduce chronically high levels of stress and tension; to deal with feelings of grief, loss, frustration, and other strong emotions generated by their working environment; and to avoid depression and burn-out.

Community Arts

Community-based arts programs are being used quite explicitly by governments in the United Kingdom as instruments to address a variety of social and economic issues that have been shown to have clear impacts on health. Similar results are documented in American research and mirrored in Canadian experience. Community arts programs have been shown to:

- **Contribute to key determinants of individual health (as defined by Health Canada)**

Community arts programs can positively affect an individual's sense of control over their life circumstances; the extent of support they feel from family, friends and community; the degree of social connectedness, cohesiveness and stability they experience; and the degree to which they feel included and valued in the culture in which they live.

- **Contribute to the creation of the kind of social environments that support key determinants of health.**

Research in a number of countries indicates community arts programs can have a powerful impact on developing and maintaining supportive community environments that are positively correlated with individual health. Among their many areas of contribution are the following: developing community identification and pride; providing vehicles to recognize contributions of all sections of a community, including affirming the pride of marginalized groups and improving their local image; and providing safe avenues for addressing difficult social issues, including reducing or resolving interracial, intercultural, and intergenerational fears and conflicts.

- **Provide vehicles that seem to be particularly effective in improving the health of the elderly**

Recent Swedish and American medical research is documenting strong positive impacts on elders' outlook on life, cognitive functioning, and physical comfort and well-being from even very simple involvement with the arts, such as talking about pictures of art works or going to a performance. Using engagement with the arts to help keep seniors healthy appears to be a very promising avenue to explore, especially since there is such a vast array of ways that one can engage in artistic expression and exploration which can be used with seniors and others who may have limited physical abilities.

- **Provide a variety of effective means of reaching youth-at-risk**

Here again there is quite extensive research that documents the effectiveness of the arts in attracting and engaging difficult to reach young people. The arts can provide safe environments for at-risk youth to test themselves, to acquire and practice a raft of social, academic, and practical skills, and to develop positive supportive relationships with caring adults who can provide guidance and constructive opportunities. The arts are also used extensively in some countries to deliver information about health risks and to attract street kids and other difficult to reach young people to treatment.

Enjoying Others' Art

Enjoying other people's art – strolling through an art gallery or museum, watching a play or dance performance, listening to a concert or other live music performance, going to a movie – all can also have a positive impact on many of the same key determinants of health.

- **Participate as a spectator or member of an audience**

The mechanisms through which this kind of participation is effective are not yet well understood, but research in Sweden and the United States is providing convincing evidence that it does have a positive impact on individual health and longevity. Some possible mechanisms are through facilitating expression and sharing of emotions, balancing of emotions, reduction of chronic or residual tensions, reduction of feelings of isolation, and strengthening feelings of social connection.

Studying Arts and Learning Other Subjects Through the Arts

This preliminary investigation revealed a vast body of research documenting the highly positive effects of studying all the forms of art, and of studying other subjects through the arts.

- **Improves educational achievement**

Health Canada maintains that health status improves with level of education. Volumes of research by prestigious institutions in many countries have clearly established the fact that students who study the arts do better in math, language arts, and most other subjects than those who do not. They are also less likely to drop out of school; and they have a higher level of enjoyment in both learning and attending school.

- **Develops a host of social skills**

Research also documents the fact that studying art and learning through the arts facilitates the acquisition of a host of social and personal skills useful in all aspects of students' lives, including employment.

- **Reaches and engages students who are not otherwise being reached**

American research is definitive on the power of learning through the arts to engage at-risk youth, and others struggling in a traditional school environment, and to provide a bridge to success in other subjects. It is also clear the arts are an effective means of leveling the playing field for youth from socially and economically disadvantaged circumstances.

Investing in Cultural Facilities

Experience and research in the United Kingdom and the United States clearly documents the success of using investment in cultural facilities to create the kinds of physical environments that are supportive of both individual and community health.

- **Creates physical environments that are supportive of individual and community health (Health Canada key determinant #6)**

All levels of government in the United Kingdom and the United States seem to use investment in cultural facilities and arts organizations to spur urban renewal, regeneration and revitalization. There are long lists of success stories in bringing new life to deteriorating and decayed urban areas in big cities, and in small and medium-sized communities.

- **Attracts other investment**

Commitments to significant cultural facilities are closely associated with attracting substantial additional investment in related retail, office, hotel and residential development, helping to accelerate regeneration or renewal in their surrounding areas.

Creating Environments that Support Healing

It is difficult and misleading to try to slot the impacts of the arts into neat categories, as has been attempted above, since there are all kinds of relationships across the categories and few activities fit neatly into any scheme of categories. The ways in which the arts can contribute to creating physical and psychological environments that promote healing is an obvious example.

Artists are directly involved in assisting in the design of medical buildings and interior spaces that foster healing through the use of their senses of colour, space and movement. Visual arts are used to assist people to more easily find their way around complex and confusing buildings. They are also used to provide exhibitions and interior “decoration” that lift the mood of patients, staff and visitors. Recorded music and images and a variety of live performances are also used to distract people from pain and worry, to relax and provide pleasure and a sense of optimism. Many kinds of arts therapies can be used to work through conflicts and difficulties and thus reduce tension in an institution, etc.

The list above is only a highly simplified summary of the multitude of inter-related and mutually reinforcing ways that the arts and engagement in the arts are already contributing, and could contribute more, to the health and well being of Canadians and the effective functioning of our health care system.

6.2 Research Challenges

One of the challenges faced in this preliminary literature search was dealing with the fact that much of the knowledge and experience with the relationships between arts and culture and health and wellness appears not to be well documented or still in the early stages of being rigorously researched. Even in the United Kingdom, where extensive research into the social and health impacts of the arts is being formally undertaken, the work is still in the early stages with regard to developing standard research protocols and methods.

One of the shortcomings of some of the existing research reviewed is that it doesn't clearly or consistently distinguish among different ways of being involved in the arts. For example, there is community creating art and there is community dialoguing and using art to encourage and support exploration of social issues. Is there a differential impact on people's health from these two types of involvement? Direct conversations with some of the leading researchers to clarify the extent to which they may have tried to distinguish among the affects of different types of participation in the arts, and investment in arts activities and institutions, could be instructive in sorting out the relationships more clearly. Such distinctions would be constructive for formulating effective policy for funding and in designing initiatives that have the highest probability of producing significant results.

An exception to the generalization above is the research currently available on the impacts of arts on education and educational achievement. Here there are volumes of research undertaken by highly credible institutions and researchers and the results appear to be very clear. In the

author's view, there is ample high calibre research on which to build sound policy and program initiatives with respect to the arts and education.

There are a number of significant challenges that researchers into the social impacts of the arts face, especially those looking at the connections between arts and culture and health and wellness. One challenge arises from the fact that engagement in the arts seems to defy simple categorization. The difficulty arises in part because of the very nature of these impacts. They appear to be complex and multi-faceted, arising from some of the most fundamental characteristics of arts-based activities -- which is their ability to offer creative, integrative experiences and opportunities for connection to other individuals and deeper connections with one's self and one's communities. Thus, to seek to disaggregate the effects of what is by nature an integrative and connecting experience is to risk missing much of its value.

Another challenge comes from the different ways that scientists and artists see, experience, and conceptualize the world. To oversimplify a complex difference -- scientists tend to break down what they are investigating into more and more discrete units and seek to isolate the relationships or impacts of individual elements of a system. Artists, on the other hand, are often seeking to integrate elements, to find connections and meaning in larger and larger frameworks and to understand and represent a whole. The scientist tends to draw more heavily on the left side of the brain, on rational, logical thought and analysis; while the artist tends to function more from the right side of the brain and intuitive and sensory ways of apprehending the world. These fundamentally different ways of perceiving and acting in and on the world make it very difficult to use the accepted methods of research in the sciences to investigate and understand the arts. Both ways of seeing the world are required to understand the diverse and complex impacts of engagement in the arts on the highly complex system we call a human.

Another challenge is that understanding the social impacts of the arts, including their impacts on individual and community health, requires the application of the knowledge and perspectives from a number of different fields. To approach the subject entirely through the lenses of one discipline is to risk overlooking or misinterpreting many of the positive contributions and constructive possibilities of artistic and cultural activities. Effective investigation of the role of arts and culture in medicine and health is properly a multi-disciplinary undertaking.

6.3 Closing Comments

This preliminary investigation has revealed a substantial body of research and experience that indicates arts and culture, broadly defined, have many contributions to make to promoting individual and community health in Canada and potentially to a more sustainable health care system. There are a number of contributions that could be strengthened or put in place in the immediate future. There are some that could begin to take affect within a very few years. There are others that could make a long term contribution to the health and wellness of both individuals and communities in Canada and thus affect future demands on our health care system.

However, the research done to write this paper has only scratched the surface of the knowledge available. Many areas need fuller exploration; and a number of questions have arisen that would be important to explore in the development of policy options or program strategies. For the reasons described in the previous section, it is very important, from this writer's perspective, that further work be interdisciplinary, carried out by multi-disciplinary teams which include expertise in various areas of medicine, creative arts therapies, community arts, cultural policy making, program design, and social research methodologies.

As this paper has reported, there are many attempts to bridge the differences in the ways scientists and arts professionals see the world currently underway through dialogue, mutual exploration and cooperative and collaborative efforts among medical personnel, arts therapists and artists. The results to date provide compelling evidence of the profound contributions that the arts and culture are already making to both medical treatment of disease and the maintenance and promotion of health and wellness. They also suggest that to advance the dialogue has a high potential to yield additional productive ways that the arts and culture can enrich the lives and promote the health and well being of individuals and communities in Canada.

Definitions – Arts and Culture

Art

The **Canadian Oxford Dictionary** defines art as follows:

1. a. A human creative skill or its application;
b. work exhibiting this;
2. a. (in plural, preceded by the) the various branches of creative activity concerned with the production of imaginative designs, sounds, ideas, etc., e.g. painting, music, writing, etc. considered collectively.
b. any one of these branches;
3. creative activity, esp. painting and drawing, resulting in visual representation;
4. human skill or workmanship as opposed to the work of nature;
5. a skill, aptitude or knack, e.g. the art of writing clearly; keeping people happy is quite an art;
6. (in plural) certain branches of (esp. university) study, esp. the fine arts and humanities, as distinguished from the sciences or technological subjects.

However, once one moves past the dictionary, one finds a world of fascinating attempts to define “art” and clear evidence that the concept and definitions of art vary widely through history and cultures.

For example, the **Department of Arts History, Sweet Briar College**, Pennsylvania, mounted an exhibition titled “What is Art . . . What is an Artist?”, “exploring the perception of art and the identity of the artist through history and in contemporary society”. See <http://www.arthistory.sbc.edu/artartists/artartists.html>.

The description on the web site asserts that “ART lacks a satisfactory definition. It is easier to describe it as the way something is done -- “the use of skill and imagination in the creation of aesthetic objects, environments, or experiences that can be shared with others” (Britannica Online)-- rather than what it is.

The exhibition and web site write-up explores the recent western ideas about art suggesting that

“The idea of an object being a ‘work of art’ emerges, together with the concept of the Artist, in the 15th and 16th centuries in Italy.

“During the Renaissance, the word Art emerges as a collective term encompassing Painting, Sculpture, and Architecture, a grouping given currency by the Italian artist and biographer Giorgio Vasari in the 16th century. Subsequently, this grouping was expanded to include Music and Poetry which became known in the 18th century as the ‘Fine Arts’. These five Arts have formed an irreducible nucleus from which have been generally excluded the ‘decorative arts’ and ‘crafts’, such as as pottery, weaving, metalworking, and furniture making, all of which have utility as an end.”

See <http://www.arthistory.sbc.edu/artartists/artartists.html> for links to discussions of “art” in various periods and locations.

Leo Tolstoy, the Russian writer (1828 – 1910) provides a provocative and comprehensive effort to define “art” in his essay titled “What is Art?” The essay was originally published in 1896. Excerpts below are from the translation by Alymer Maude (first published in 1899). Chapters of the essay can be found on <http://www.csulb.edu/~jvancamp/361r14.html>

"#1. In order correctly to define art, it is necessary, first of all, to cease to consider it as a means to pleasure and to consider it as one of the conditions of human life. Viewing it in this way we cannot fail to observe that art is one of the means of intercourse between man and man.

#2. Every work of art causes the receiver to enter into a certain kind of relationship both with him who produced, or is producing, the art, and with all those who, simultaneously, previously, or subsequently, receive the same artistic impression.

#3. Speech, transmitting the thoughts and experiences of men, serves as a means of union among them, and art acts in a similar manner. The peculiarity of this latter means of intercourse, distinguishing it from intercourse by means of words, consists in this, that whereas by words a man transmits his thoughts to another, by means of art he transmits his feelings.

#4. The activity of art is based on the fact that a man, receiving through his sense of hearing or sight another man's expression of feeling, is capable of experiencing the emotion which moved the man who expressed it. To take the simplest example; one man laughs, and another who hears becomes merry; or a man weeps, and another who hears feels sorrow. A man is excited or irritated, and another man seeing him comes to a similar state of mind. By his movements or by the sounds of his voice, a man expresses courage and determination or sadness and calmness, and this state of mind passes on to others. A man suffers, expressing his sufferings by groans and spasms, and this suffering transmits itself to other people; a man expresses his feeling of admiration, devotion, fear, respect, or love to certain objects, persons, or phenomena, and others are infected by the same feelings of admiration, devotion, fear, respect, or love to the same objects, persons, and phenomena.

#5. And it is upon this capacity of man to receive another man's expression of feeling and experience those feelings himself, that the activity of art is based.

#6. If a man infects another or others directly, immediately, by his appearance or by the sounds he gives vent to at the very time he experiences the feeling; if he causes another man to yawn when he himself cannot help yawning, or to laugh or cry when he himself is obliged to laugh or cry, or to suffer when he himself is suffering - that does not amount to art.

#7. Art begins when one person, with the object of joining another or others to himself in one and the same feeling, expresses that feeling by certain external indications. . . . [stories, painting, sculpture, sounds).

#8. The feelings with which the artist infects others may be most various - very strong or very weak, very important or very insignificant, very bad or very good: feelings of love for one's own country, self-devotion and submission to fate or to God expressed in a drama, raptures of lovers described in a novel, feelings of voluptuousness expressed in a picture, courage expressed in a triumphal march, merriment evoked by a dance, humor evoked by a funny story, the feeling of quietness transmitted by an evening landscape or by a lullaby, or the feeling of admiration evoked by a beautiful arabesque - it is all art.

#10. To evoke in oneself a feeling one has once experienced, and having evoked it in oneself, then, by means of movements, lines, colors, sounds, or forms expressed in words, so to transmit that feeling that others may experience the same feeling - this is the activity of art.

#11. *Art is a human activity consisting in this, that one man consciously, by means of certain external signs, hands on to others feelings he has lived through, and that other people are infected by these feelings and also experience them.*

#12. *Art is not, as the metaphysicians say, the manifestation of some mysterious idea of beauty or God; it is not, as the aesthetical physiologists say, a game in which man lets off his excess of stored-up energy; it is not the expression of man's emotions by external signs; it is not the production of pleasing objects; and, above all, it is not pleasure; but it is a means of union among men, joining them together in the same feelings, and indispensable for the life and progress toward well-being of individuals and of humanity."*

Community Art

There are many definitions of community art. Some frequently used ones are listed below.

"Community art is that which is rooted in a shared sense of place, tradition or spirit (deNobriga). Community art "is as likely to celebrate cultural traditions or provide a space for a community to reflect," as to have an activist agenda. ..."community based art is as much about the process of involving people in the making of the work as the finished object itself."

Jan Cohen-Cruz, "An Introduction to Community Art and Activism." Community Arts Network Reading Room .

"...'community arts' is about employing creative and artistic means to further humankind's search for a society that is meaningful and inclusive."

[It includes] work by artists who have enabled people of particular cultural groups to investigate, affirm, express and reshape their cultures through the arts.

- work by artists who have made art and stimulated arts making to further important political movements.
- role of the artist in public life as supported by the government at all levels (eg. Works Progress Administration of the New Deal in the United States)
- socio-cultural animation"

Culture

For a description of the recent etymology of the word "culture" in the United States, go to Learning Commons – What is Culture?, glossary section at <http://www.wsu.edu:8001/vcwsu/commons/topics/culture/glossary/culture.html>

The definitions of culture vary widely. A few selections from the above web site illustrate the range:

"Culture is properly described as the love of perfection ; it is a study of perfection."

Matthew Arnold, *Culture and Anarchy* , I, 1869 [source: Esar]

Culture is to "know the best that has been said and thought in the world."

Matthew Arnold ,*Literature and Dogma* , pref., 1873 [source: Esar]

"Culture is everything. Culture is the way we dress, the way we carry our heads, the way we walk, the way we tie our ties -- it is not only the fact of writing books or building houses."

Aime Cesair, Martiniquen writer, speaking to the World Congress of Black Writers and Artists in Paris [source: Petras and Petras]

“No culture can live, if it attempts to be exclusive.”

“Culture of the mind must be subservient to the heart.”

Mahatma Gandhi [source: Correct Quotes]

“That is true culture which helps us to work for the social betterment of all.”

Henry Ward Beecher [source: Correct Quotes]

“Culture is but the fine flowering of real education, and it is the training of the feeling, the tastes, and the manners that makes it so.”

Minnie Kellogg, Iroquois leader [source: Petras and Petras]

“A man should be just cultured enough to be able to look with suspicion upon culture.”

Samuel Butler [source: Esar]

“Men are so inclined to content themselves with what is commonest; the spirit and the senses so easily grow dead to the impressions of the beautiful and perfect, that every one should study, by all methods, to nourish in his mind the faculty of feeling these things. ...For this reason, one ought every day at least, to hear a little song, read a good poem, see a fine picture, and, if it were possible, to speak a few reasonable words.”

Goethe, *Wilhelm Meister's Apprenticeship*. Bk. v, ch. 1 (Carlyle, tr.) [source: Stevenson]

Definitions – Creative Arts Therapies

Each branch of the creative arts therapies have different schools of thought or approaches within them, which are beyond the scope of this paper. There are also variations between countries. The definitions reproduced below are general descriptive ones used by American national associations.

Art Therapy (visual arts)

The American Art Therapy Association's (AATA) website defines art therapy “as a human service profession that uses art media, images, the creative process, and patient/client responses to the created products as reflections of an individual's development, abilities, personality, interests, concerns, and conflicts.” (American Art Therapy Association)

Dance / Movement Therapy

The American Dance Therapy Association defines dance/movement therapy as “the psychotherapeutic use of movement as a process which furthers the emotional, cognitive and physical integration of the individual.”

The use of body movement as a cathartic and “therapeutic” tool is perhaps as old as dance itself. Fran J. Levy suggests that in many primitive societies, dance was as essential as eating and sleeping, providing individuals with a means to express themselves, to communicate feelings to others, and to commune with nature. “Dance rituals frequently accompanied major life changes, thus serving to promote personal integration as well as the fundamental integration of the individual with society”) (Dance Movement Therapy: A Healing Art 1988)

Drama Therapy

Drama Therapy is defined by the American National Association for Drama Therapy, Inc. as “the systematic and intentional use of drama/theatre processes, products, and associations to achieve the therapeutic goals of symptom relief, emotional and physical integration and personal growth.” (National Association for Drama Therapy)

Psychodrama

As defined by the American Society of Group Psychotherapy and Psychodrama (founded in April, 1942) psychodrama is “a therapeutic discipline which uses action methods, sociometry, role training, and group dynamics to facilitate constructive change in the lives of participants.” It is based on the theories and methodology of Jacob L. Moreno, M.D. (1889-1974). (American Society of Group Psychotherapy and Psychodrama)

Music Therapy

Music therapy is defined by the American Music Therapy Association as a therapeutic approach which combines “music modalities with humanistic, psychodynamic, behavioural, and biomedical methods to assist clients attain therapeutic goals. These goals can be mental, physical, emotional, social, and / or spiritual in nature. Problems or needs are addressed both through the therapeutic relationship between the client and music therapist, as well as approached directly through the music itself. (American Music Therapy Association).

Poetry Therapy

The (American) National Association for Poetry Therapy, Inc.’s website states: “Poetry therapy and bibliotherapy are terms used synonymously to describe the intentional use of poetry and other forms of literature for healing and personal growth. The term ‘biblio’ means books and, by extension, literature. ‘Therapy’ is derived from the Greek word ‘therapeia’ meaning ‘to serve or help medically.’ Basically, then bibliotherapy is the use of literature to promote mental health. (National Association for Poetry Therapy).

Bibliography and List of Works Cited

Note: As a number of articles and briefing papers used in this research were accessed via the Internet, downloaded and printed, there is the possibility that page numbers cited here may vary somewhat from the printed papers accessed directly from the publishers. In some instances, page numbers are not given in the citation because it is clear the pagination that results from downloading and printing material obtained from an article service will bear no relation to original page numbers of the same material published in hard copy.

American Art Therapy Association, The. "Art Therapy" <http://www.ncata.com/art.html>. April, 2002

American Dance Therapy Association, The. "Dance/Movement Therapy" <http://www.ncata.com/dance.html>. April 2002.

American Music Therapy Association, The. "Music Therapy" <http://www.ncata.com/music.html>. April 2002.

American Society of Group Psychotherapy and Psychodrama, The. "Psychodrama" <http://www.ncata.com/psychodrama.html>. April 2002.

Azmler, Jason J. "Culture and Economic Competitiveness: An Emerging Role for the Arts in Canada." A Western Cities Project Discussion Paper. Canada West Foundation, March 2002.

Bassuk, S.S., T.A. Glass, L.F. Berkman. "Social Disengagement and Incident Cognitive Decline in Community-dwelling Elderly Persons." *Annual Internal Medicine* 1999. Aug. 3: 131 (3): 165-73. Qtd in Spencer.

Berg, Geri, ed. *The Visual Arts and Medical Education*. Carbondale and Edwardsville: Southern Illinois University Press, 1983.

Blakeslee, Sandra. "Placebos Prove So Powerful Even Experts Are Surprised: New Studies Explore the Brain's Triumph Over Reality," *The New York Times*, October 13, 1998 qtd in Spencer.

Bygren, Lars Olov, Boinkum Benson Konlaan, Sven-Erik Johansson, "Attendance at Cultural Events, Reading Books or Periodicals, and Making Music or Singing in a Choir as Determinants for Survival: Swedish interview survey of Living Conditions". Department of Social Medicine, University of Umea, Umea Swenden. Swedish Central Bureau of Statistics, Stockholm Sweden in *British Medical Journal* 1996: 313: 1577-1580 (21 December)

Campbell, C., R. Wood and M. Kelly. *Social Capital and Health*. London: Health Education Authority, 1999. Qtd in Coalter 22.

Catterall, James S., "Does Experience in the Arts Boost Academic Achievement?" *Art Education*, 51 (3), 6-11. (1998) Qtd in Uptis and Smithrim.

___ research coordinator. *Critical Links: Learning in the Arts and Student Social and Academic Development*. Arts Education Partnership. May, 2002. (access through <http://www.aep-arts.org>).

___R. Chapleau, and J. Iwanaga. "Involvement in the Arts and Human Development: Extending an Analysis of General Association and Introducing the Special Cases of Intensive Involvement

in Music and in Theatre Arts." Unpublished manuscript. The Imagination Project, Graduate School of Education and Information Studies, University of California at Los Angeles. 1999.

Center for Arts and Culture. Washington DC. <http://www.culturalpolicy.org>

Coalter, Fred. Realising the Potential of Cultural Services: the Case for the Arts. Research briefing twelve point four for the Local Government Association. London: LGA publications, 2001

Cohen, Sheldon. Journal of the American Medical Association (access via <http://www.ama-assn.org/sci-pubs/sci-news/1997/snr0625.htm#oc6d13>) Qtd in Spencer.

--- "Psychosocial Models of the Role of Social Support in the Etiology of Physical Disease." Health Psychology 7.3 (1988): 269-297.

Collins, Sharon K. and Kay Kuck. "Music Therapy in the Neonatal Intensive Care Unit." Neonatal Network. March 1991 Vol. 9 No 6

Davis-Rollans, C. and S.G. Cunningham. "Physiologic Responses of Coronary Care Patients to Selected Music." Heart and Lung 16 (4), July 1987, 370-378.

Deane, K., M. Fitch and M. Carman. "An Innovative Art Therapy Program for Cancer Patients." Canadian Oncology Nurses Journal 10.4 (fall 2000): 147-151,152-157.

Department of Culture, Media and Sport. Arts and Sport, Policy Action Team 10: A Report to the Social Inclusion Unit. London 1999. quoted in Coalter 23.

Dickinson, Dee. "Learning Through the Arts." New Horizons for Learning. 1997-2002. Seattle. (with Barbara McKean, University of Washington, and Eric Oddleifson, Center for the Arts in the Basic Curriculum. (access through <http://www.newhorizons.org>)

"Eloquent Evidence: Arts at the Core of Learning. President's Committee on the Arts and Humanities. October, 1995.

Fiske, Edward B. ed. "Champions of Change: The Impact of the Arts on Learning." The Arts Foundation Partnership of the President's Committee on the Arts and the Humanities. Access via the Arts Education Partnership, aep@ccsso.org

Frankish, C. J. et al. Health Impact Assessment as a Tool for Population Health Promotion and Public Policy. Institute of Health Promotion Research, University of British Columbia. Vancouver: 1996 as cited on Health Canada web site. Population Health: Defining Health.

Free Street. ArtsConnect program. Access via <http://www.freestreet.org/artsconnect.html>.

Gaynor, Mitchell L, MD. The Healing Power of Sound: Recovery from Life-Threatening Illness Using Sound, Voice and Music. Boston and London: Shambala, 2002.

Gilbertson, S. and W. Ischebeck. "Merging Pathways: Music Therapy in Neurosurgical Rehabilitation." (Klinik Holthausen, Hattingen, Germany) Acta Neurochir Suppl 2002; 79:41-2

Glass, T.A., C.M. de Leon, R.A. Marottoli, and L.F. Berkman. "Population Based Study of Social and Productive Activities as Predictors of Survival Among Elderly Americans." British Medical Journal, 1999 Aug 21: 319 (7208): 478-483. Qtd in Spencer.

Government of Canada. White Paper. A New Perspective on the Health of Canadians (Lalonde Report). 1974.

Government of Canada. Toward a Healthy Future: The Second Report on the Health of Canadians. September 1999)

Government of Canada. Strategies for Population Health: Investing in the Health of Canadians.

Hanna, Judith Lynne. Dance and Stress: Resistance, Reduction, and Euphoria. New York: AMS Press, Inc., 1988.

Health Canada . "Population Approach. Defining Health" http://www.hc-sc.gc.ca/hppb/phdd/approach/index.html#def_health. May 2002

Health Canada . "What Determines Health?" http://www.hc-sc.gc.ca/hppb/phdd/determinants/e_determinants.html#unhealthy May, 2002

Health Education Authority. Art for Health: A Review of Good Practice in Community-Based Arts Projects and Interventions which Impact on Health and Well-being. Summary Bulletin. Health Education Authority. London: 1999. Quoted in Coalter 22.

Heath, Shirley Brice. and Elisabeth. Soep. "Youth Development and the Arts in Non-School Hours" Grantmakers in the Arts 9:1:9-16, 32.

Heath, Shirley Brice and Laura Smyth. ArtShow: Youth and Community Development, A Resource Guide. Washington, D.C.: Partners for Livable Communities, 1999.

Hokkaido Technological College. "Butoh Dance Method for Psychosomatic Exploration". Vol 26 in Press as translated by Victoria Chemko of Victoria, BC.

Hospital Audiences, Inc. "Live Arts Experiences: Their Impact on Health and Wellness". 3rd edition, June 2000

Japan Dance Therapy Association (JADTA). http://www.jadta.net/dance/jadta_english.html

Jermyn, Helen. "The Arts and Social Exclusion: A Review Prepared for the Arts Council of England. September, 2001.

Johansson, Sven Erik, Boinkum Benson Konlaan, and Lars Olov Bygren. "Sustaining Habits of Attending Cultural Events and Maintenance of Health: A Longitudinal Study." Department of Social Medicine, University of Umea, Sweden. Health Promotion International, Vol 16, No. 3, 229-234. September 2001.

Krasnow, David. "TeenStreet". High Performance #63, Fall 1993. Accessed via <http://www.communityarts.net/readingroom>.

Lefco, Helene. Dance Therapy: Narrative Case Histories of Therapy Sessions with Six Patients. Chicago: Nelson-Hall, 1974.

Levy, Fran J. Dance/Movement Therapy: A Healing Art. Reston, Virginia: American Alliance for Health, Physical Education, Recreation, and Dance: 1988.

Lippin, Richard A, M.D. "How the Arts Inform Occupational Medicine". A keynote address presented to the Australian and New Zealand Society of Occupational Medicine Annual Scientific Meeting, Manly, Australia. October 13, 1998. Some of the material from this speech is also contained in "Applying Lessons from the Work of Art". Business and Health, December, 1999. Access the latter through <http://www.findarticles.com>.

Luzzatto, Paola and Bonnie Gabriel. "The Creative Journey: A Model for Short-term Group Art Therapy with Posttreatment Cancer Patients." *Art Therapy*, Vol 17.number 4, 2000, 265-269.

Maruta, Toshihiko, MD, Colligan, Robert C, PhD., Malinchoc, Michael, MS; and Offord, Kenneth P, MS. "Optimists vs Pessimists: Survival Rate Among Medical Patients Over a 30-Year Period, Mayo Clinic Proceedings. 2000; 75: 140-143.

--- "Optimism-Pessimism Assessed in the 1960s and Self-reported Health Status 30 Years Later." *Mayo Clinic Proceedings*. 2002; 77: 748-753.

Matarasso, F. "Defining Values: Evaluating Arts Programmes" *Social Impact of the Arts*, Working Paper 1. Stroud: Comedia, 1996.

Matarasso, F. *Use or Ornament: The Social Impact of Participation in the Arts*. Stroud: Comedia, 1997.

Matarasso, F. *Poverty and Oysters: The Social Impact of Local Arts Development in Portsmouth*. Stroud: Comedia, 1998. quoted in Coalter.

Matarasso, F. "Vital Signs: a summary" Comedia.

Moriarty, G. *Social Impact Monitoring Study for Bolton City Challenge and Arts Unit*, Education and Arts Department, Bolton Metropolitan Borough Council, United Kingdom 1998. quoted in Coalter.

Moriarty, Gerri. *Brightmet Arts Impact Assessment: Year 2 2000-2001*. Report to Bolton MBC Arts Unit, Brightmet Arts, Bolton. 2001

Moss, A. "Music and the Surgical Patient: The Effect of Music on Anxiety." *Association of Operating Room Nurses Journal* 48 (1), July 1988, 64-69.

Music Therapy: *Body, Mind and Music Part I*. Canadian Broadcasting System Ideas program, broadcast June 6, 2002. Access via Ideas Transcripts, Box 500, Station A, Toronto, Ontario, M5W 1E6.

Mulcahy, Kevin V. "The Arts and Community Development: Local Agencies as Cultural Extension Agents." Background paper prepared for the Center for Arts and Culture. 2000.

National Association for Drama Therapy, Inc. "Drama Therapy". <http://www.ncata.com/drama.html>. April 2002

National Association for Poetry Therapy, Inc. "Poetry Therapy". <http://www.ncata.com/poetry.html>. April 2002.

National Institute of Psychosocial Factors and Health, "Stimulation Provided in the Form of Pictures". Karolinska Institute, Stockholm, Sweden.

Nelson, Karen R. "The Music of Healing." National Endowment for the Arts.
<http://www.arts.endow.gov/artforms/Music/musictherapy.html>.

Palmer, Janice. "An Introduction to the Arts-for-Health Movement or How the Arts Sneaked in on the Medical Model." Article posted in the Community Arts Network Reading Room. Access through <http://www.communityarts.net/readingroom>)

Partners for Livable Communities. <http://www.livable.com>

Pelletier, Dr. Kenneth R. *Mind as Healer, Mind as Slayer: A Holistic Approach to Preventing Stress Disorders*. New York: Delta, 1992.

___ *Sound Mind, Sound Body: A New Model for Lifelong Health*. New York: Simon and Schuster, 1994.

Pennebaker, J.W. and J.D.Seagal. "Forming a Story: The Health Benefits of a Narrative". Department of Psychology, University of Texas at Austin. (PubMed abstract)
Pennebaker@psy.utexas.edu.

Perlstein, Susan. "Arts and Creative Aging Across America." (Access through <http://www.communityarts.net/readingroom/archive/intro-elders.php>)

___ "Really Caring: Why a Comprehensive Healthcare System Includes the Arts." *High Performance*, 74, Winter 1996. (access through <http://www.communityarts.net/readingroom/archive/perlstein74.php>)

___ "We Are All Connected: Elders Share the Arts". *High Performance*. Spring/Summer 1995. (access through <http://www.communityarts.net/readingroom/archive/ca/perlstein-esta.php>)

Pilisuk, Marc and Susan Hillier Parks. *The Healing Web: Social Networks and Human Survival*. London:University Press of New England, 1986.

Pimsler, Stuart. "Toward a New Folk Dance: Caregivers and Other Partners." *High Performance*, 74, Winter 1996. Access through www.communityarts.net/readingroom/archive/pimsler74.php)

Putnam. "The Prosperous Community: Social Capital and Public Life." *American Prospect*. 13:35-42. quoted in Coalter 22.

Schiemann,U, M. Gross, R. Reuter, and H. Kellner. "Improved Procedure of Colonoscopy under Accompanying Music Therapy." *Medizinische Poliklinik, Klinikum Innenstadt, Ludwig-Maximilians-Universitat Muenchen, Pettenkofferstr. 8a, D-80336 Muenchen, Germany*. uwe.schiemann@pk-i.med.uni-muenchen.de.

Schwartz, Fred J, M.D., Ruthann Ritchie, RMT-BC, Leonard Sacks, M.D. and Cynthia Phillips, OT. "Music, Stress Reduction and Medical Cost Savings in the Neonatal Intensive Care Unit.", Departments of Anesthesiology and Neonatology, Piedmont Hospital, Atlanta, Georgia.

Schwarzman, Mat. "Why Not Football? The Politics of Youth Arts Programs in America." Community Arts Network Reading Room
(access through <http://www.communityarts.net/readingroom>)

Shaw, P. *Changing Places: The Arts in Scotland's Urban Areas*. The Scottish Arts Council, 1995.

Simon, Peter. President of Royal Conservatory of Music. re Learning Through the Arts Program, qtd. in *Globe and Mail*, Dec. 26, 2002.

Society for the Arts in Healthcare. "Caring for Caregivers".
<http://www.societyartshealthcare.org/research/>

Spencer, Michael Jon. "Live Arts Experiences: "Their Impact on Health and Wellness," 3rd edition. Hospital Audiences, Inc. (HAI) New York, June 2000.

Stern, Mark J. Testimony before the Committee on Parks, Recreation, and Cultural Affairs of the City Council of Philadelphia. December 5, 2000 (<http://www.ssw.upenn.edu/SIAP/>)

Stern, Mark J. "Is All the World Philadelphia?: A Multi-city Study of Arts and Cultural Organizations, Diversity, and Urban Revitalization." *Social Impact of the Arts Project*. Working Paper # 9, May 1999. University of Pennsylvania School of Social Work. (<http://www.ssw.upenn.edu/SIAP/>)

Strom, Elizabeth. "Strengthening Communities Through Culture." Centre for Arts and Culture, Issue paper for the Art, Culture and the National Agenda project. Centre for Arts and Culture, Washington, D.C. November, 2001.

Suter, Steve. *Health Psychophysiology: Mind-Body Interactions in Wellness and Illness*. Hillsdale: Lawrence Erlbaum Associates, 1986.

Upitis, Rena and Katharine Smithrim. "Learning Through the Arts"™. National Assessment 1999-2002. Final Report to the Royal Conservatory of Music Part I: Grade 6 Student Achievement and Engagement. November, 2002.

Wadeson, Harriet. *Art Psychotherapy*. New York: John Wiley & Sons, 1980.

Wali, Alaka, Rebecca Severson and Mario Longoni. "More Than a Hobby: Adult Participation in the Informal Arts." Paper presented at the conference on Social Theory, Politics and the Arts, Washington, D.C. October, 2000. Qtd in Strom.

Wikstrom, BM, T. Theorell and S. Sandstrom. "Medical Health and Emotional Effects of Art Stimulation in Old Age. A Controlled Intervention Study Concerning the Effects of Visual Stimulation Provided in the Form of Pictures." National Institute of Psychosocial Factors and Health, Karolinska Institute, Stockholm, Sweden.

Williams, Deidre. "How the Arts Measure Up: Australian Research into Social Impact" Gloucestershire: Comedia 1997 (Social Impact of the Arts Working Paper No. 8) qtd in Jermyn, 23.

Zelazny, C.M. "Therapeutic Instrumental Music Playing in Hand Rehabilitation for Older Adults with Osteoarthritis: Four Case Studies." *Journal of Music Therapy* 2001 Summer 38(2) 97-113.

Zimmer, Zachary, M.A., Tom Hickey, DrPH, Mark S. Searle, Ph.D. "Activity Participation and Well-being Among Older People with Arthritis." *The Gerontologist*, Vol. 35, no. 4, 1995, 463-471. Qtd. in Spencer.

