

THE IMPACT OF ARTS AND CULTURE

AGENDA:

WELLNESS



greater
philadelphia cultural
ALLIANCE

SUMMARY

Medicine is a science. Making medicine better is an art.

Educating doctors through the arts is an emerging practice that gets to the root of healthcare, impacting future physicians as early as their first year of medical school. Improving doctors' diagnostic abilities and helping them fight their own burnout improves patient care: patients treated by arts-educated doctors and receiving arts-integrated care have measurably better outcomes.

Greater Philadelphia excels both in the education of doctors and the treatment of patients. **Agenda: Wellness** is at the intersection of those groundbreaking advances in medicine and the region's world-class arts and culture sector. It's the connection of these legacies—from Thomas Eakins' 19th-century painting *The Gross Clinic*, pictured on the cover, to today's arts-infused medical curriculum—that raises the improvement of medicine, medical education and patient outcomes to an art form.

The *Agenda* series highlights existing research and resources that demonstrate the relevance and impact of arts and culture in Greater Philadelphia, throughout the Commonwealth and across the country.

IMPACT: IMPROVING DIAGNOSIS

Researchers from the University of Pennsylvania and Children’s Hospital of Philadelphia found that students who took a six-part course in fine-art observation significantly improved their clinical observation skills. Ophthalmology students who participated in the study, which took place at the Philadelphia Museum of Art, showed a 26% increase in diagnostic and observation abilities.¹

Hands-on and “eyes-on” exercises are part of the curriculum presented at the Pennsylvania Academy of the Fine Arts to medical students and practicing physicians at Jefferson University, Drexel University College of Medicine and Cooper Medical School at Rowan University. Improving observational skills through “visual literacy” enhances doctors’ and students’ abilities to differentiate between similar conditions, as well as to identify the changes caused by a syndrome or disease, in order to make the correct diagnosis.

The time it takes to make a correct diagnosis can be the difference between life and death: “when treatment options are limited and prognosis is bleak, a diagnostic error is unfortunate; when prompt treatment can return a patient to full health, a diagnostic error is devastating.” And an incorrect or delayed diagnosis doesn’t just affect the outcome, it affects the financial cost to patient and provider—for example, the cost of treating Stage 4 colon cancer is more than three times the cost of treating the same cancer in Stage 1.²

A quick and correct diagnosis saves lives, speeds recovery and reduces healthcare costs.²

Source: 1 Gurwin, J., A Randomized Controlled Study of Art Observation Training to Improve Medical Student Ophthalmology Skills.

2 Khullar, D., Reducing Diagnostic Errors — Why Now?

FINE-ART OBSERVATION
RESULTS IN A

26%
increase

IN DIAGNOSTIC AND
OBSERVATION ABILITIES



Photograph by Ed Cunicelli, courtesy of Paoli Hospital Foundation.

“Art training may be particularly helpful in specialties where diagnosis and treatment are based primarily on direct observation, such as ophthalmology, dermatology and radiology.”



Photograph by Steve Belkowitz.

IMPACT: ADVANCING PATIENT CARE

A study by Jefferson University's Salvatore Mangione, MD reveals the positive impact of arts and culture on medical students. Exposure to music, literature, theater, visual arts and other cultural activities results in **significant increases in empathy, wisdom, confidence in their abilities, emotional intelligence and visual-spatial skills**, which correlate to improved medical practice and better patient care.

As a result, Jefferson University and Lantern Theater Company partner to use theater to foster empathy in medical students and health professionals. Participants in the workshops draw on performance techniques and writing exercises that they then use to better see patient perspectives and engage with peers. A final, live performance is presented by Jefferson students and Lantern artists.

“The humanities are not only a way to teach compassion and tolerance, but also represent the wisdom of those who came before us.”

Engaging with visual arts, music, literature, museums and galleries, live performances and dance makes doctors more likely to be **EMPATHETIC, OBSERVANT, AND SELF-AWARE.**

IMPACT: FIGHTING BURNOUT

Just as art improves empathy, confidence and wisdom among physicians and medical students, it also helps reduce the symptoms of burnout that are prevalent in the healthcare industry.¹ In particular, medical students entering their residencies experience an average increase in depression symptoms of more than 15%,³ and the rate of suicide among physicians is higher than any other occupation.⁴

Arts and culture gives doctors “emotional resilience, humility, mindfulness and humor.”¹

At the Lewis Katz School of Medicine at Temple University, the Narrative Medicine program seeks to “focus on the human side of medicine” by integrating storytelling into the elective curriculum. Students and faculty participate in Narrative Medicine Story Slams, reflecting on lessons learned and interactions with patients as a way to share and process personal and professional experiences.

1 Mangione, S., et al. Medical Students’ Exposure to the Humanities Correlates with Positive Personal Qualities and Reduced Burnout: a Multi-Institutional U.S. Survey.

2 Physicians Foundation, 2016 Survey of America’s Physicians: Practice Patterns and Perspectives.

3 Mata, D.A., Prevalence of Depression and Depressive Symptoms Among Resident Physicians – A Systematic Review and Meta-Analysis.

4 Agerbo, E., Suicide and Occupation: the Impact of Socio-Economic, Demographic and Psychiatric Differences.

5 Mangione, S., et al. Medical Students’ Exposure to the Humanities Correlates with Positive Personal Qualities and Reduced Burnout: a Multi-Institutional U.S. Survey.

6 ibid

Nobel Prize-winning scientists are more likely than the average person to be actively involved in the arts:

2x as likely to be practicing musicians, composers and conductors

7x as likely to be visual artists, sculptors and printmakers

7.5 x as likely to be craftsmen, woodworkers and glassblowers

12x as likely to write poetry, short stories, plays and essays

Source: Root-Bernstein, R., et al. Arts Foster Scientific Success: Avocations of Nobel, National Academy, Royal Society, and Sigma Xi Members

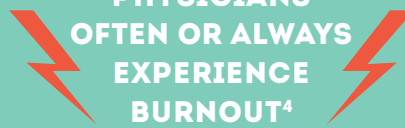
80%

OF PRACTICING PHYSICIANS REPORT BEING AT OR BEYOND CAPACITY



49%

OF PRACTICING PHYSICIANS OFTEN OR ALWAYS EXPERIENCE BURNOUT⁴



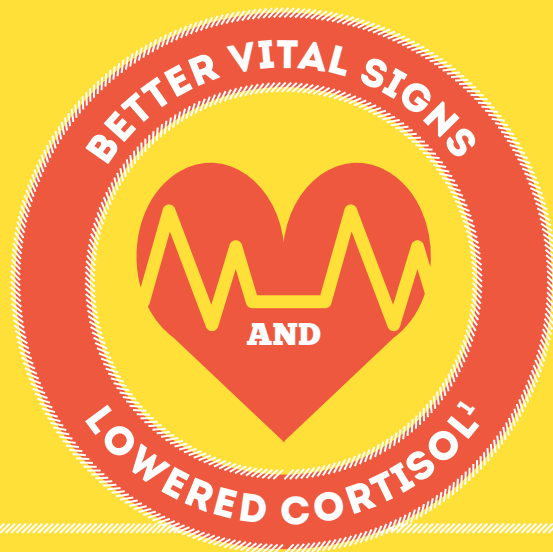
RESEARCH

ART MAKES THE DIFFERENCE:

Art intervention — arts-based therapies as well as the presence of art in public spaces and permanent galleries inside hospitals — results in:



DECREASED USE OF
**NARCOTIC
PAIN
MEDICATION**³
AND
LESS
MEDICATION
NEEDED FOR
SLEEP¹



SHORTER
HOSPITAL  STAYS²

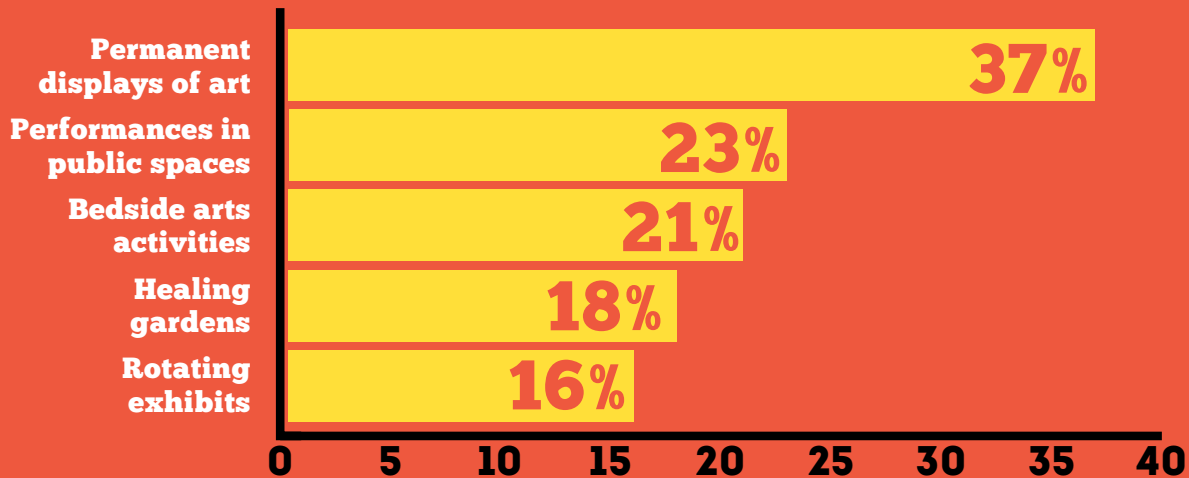
MORE INFORMATION, CITATIONS + RESOURCES ► [PHILACULTURE.ORG/WELLNESS](https://philaculture.org/wellness)

1 Staricoff, RL., Arts in Health: the Value of Evaluation.

2 Kreitzer M., Snyder M. Healing the Heart: Integrating Complementary Therapies and Healing Practices into the Care of Cardiovascular Patients.

3 Ulrich, R., Lunden, O., Eltinge, J., Effects of Exposure to Nature and Abstract Pictures on Patients Recovering from Open Heart Surgery.

ARTS, HEALTH & HOSPITALS: MOST COMMON WAYS HOSPITALS SUCCESSFULLY INTEGRATE ART INTO PATIENT CARE



Source: State of the Field Report: Arts in Healthcare 2009. Washington, DC: Society for the Arts in Healthcare.

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**LANTERN
THEATER
COMPANY**

PAFA
Pennsylvania Academy
of the Fine Arts

Philadelphia
Museum of
Art

ARTS IN HEALTHCARE: RESOURCES, ORGANIZATIONS AND INSTITUTIONS

Institutions

The College of Physicians of Philadelphia: Delaware Valley Medical Student Wellness Collaborative

<https://collegeofphysicians.org/dvmswc>

Drexel University: Medical Humanities

<http://drexel.edu/medicine/academics/md-program/additional-opportunities/medical-humanities/>

Jefferson University: Humanities & Health

<https://www.jefferson.edu/university/student-life-engagement/medical-humanities-series.html>

Pennsylvania Academy for the Fine Arts

<https://www.pafa.org/adult-programs/art-and-medicine-programs>

Temple University: Narrative Medicine

<https://medicine.temple.edu/education/narrative-medicine-program>

Organizations

Americans for the Arts

<https://www.americansforthearts.org/by-topic/arts-and-healing>

The National Organization for Arts in Health

<https://thenoah.net/>

The Kennedy Center's Sound Health Project

<https://www.kennedy-center.org/festivals/soundhealth>

The University of Florida Center for Arts in Medicine

<https://arts.ufl.edu/academics/center-for-arts-in-medicine/resources/talking-about-arts-in-health/executive-summary/>

Resources

Arts, Health and Wellbeing in America (National Organization for Arts in Health)

<https://thenoah.net/about/arts-health-and-well-being-in-america-a-white-paper/>

Arts in Healthcare: 2009 State of the Field Report (Americans for the Arts)

https://www.americansforthearts.org/sites/default/files/pdf/get_involved/advocacy/research/2014/arts_in_healthcare.pdf

Creative Health: the Arts for Health and Wellbeing (The All-Party Parliamentary Group on Arts, Health and Wellbeing - UK)

<http://www.artshealthandwellbeing.org.uk/appg-inquiry/>

Guide to Community-Engaged Research in the Arts and Health (National Endowment for the Arts)

<https://www.arts.gov/publications/national-endowment-arts-guide-community-engaged-research-arts-and-health>

Medical Students' Exposure to the Humanities Correlates with Positive Personal Qualities and Reduced Burnout: A Multi-Institutional U.S. Survey (Thomas Jefferson University, Lantern Theater Company)

<https://link.springer.com/article/10.1007%2Fs11606-017-4275-8>

A Randomized Controlled Study of Art Observation Training to Improve Medical Student Ophthalmology Skills (University of Pennsylvania, Philadelphia Museum of Art)

<https://www.ncbi.nlm.nih.gov/pubmed/28781219>

Practice Patterns and Perspectives: the Physicians Foundation 2016 Physician Survey

<https://physiciansfoundation.org/research-insights/physician-survey/>



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