

# Florida Arts & Wellbeing Indicators Executive Summary

September 2018

The mission of the State of Florida Division of Cultural Affairs is to “advance, support, and promote arts and culture to strengthen the economy and quality of life for all Floridians.” The Division’s 2015-2020 strategic plan asserts a goal to “promote healthy, vibrant, thriving communities”. The Florida Arts and Wellbeing Indicators project is a step toward strengthening that mission, and toward documenting that Florida’s investments in the arts have positive health impacts on its communities. This work aligns with the Division’s commitment to advancing arts and culture in Florida and makes it possible to provide important data to arts advocates and arts organizations in keeping with its strategic goal to “collect, distill, and disseminate current information that advances arts and culture in Florida.”

The Florida Arts and Wellbeing Indicators project was undertaken in three phases over three years (2015-2018) by an interdisciplinary team of investigators at the University of Florida Center for Arts in Medicine, with funding from the National Endowment for the Arts administered and awarded by the Florida Division of Cultural Affairs.

The overarching goal of the project was to develop a set of indicators that could measure associations between arts participation and wellbeing at the community level.

The project team included investigators from the arts, community development and public health, epidemiologists, a biostatistician and a statistical epidemiologist, supported by research associates and assistants from the Center’s Interdisciplinary Research Lab and DCA staff. The project also utilized key partnerships with arts, public health and other community organizations in nine counties.



# Florida Arts & Wellbeing Indicators Project, 2015-18

Phase One	Phase Two	Phase Three
<ul style="list-style-type: none"><li>• Literature Review</li><li>• Analysis of other models</li><li>• Development of a preliminary model</li><li>• Identification of initial variables</li><li>• Testing of initial survey questions</li></ul>	<ul style="list-style-type: none"><li>• Revision of the model</li><li>• Survey development</li><li>• Identification of secondary data sets</li><li>• Survey and methods testing in three counties</li><li>• Development of preliminary statistical model</li></ul>	<ul style="list-style-type: none"><li>• Survey revision and testing</li><li>• Statistical model testing</li><li>• Testing in additional rural counties</li><li>• Toolkit development</li><li>• Conclusions regarding usefulness and reliability of the model</li></ul>

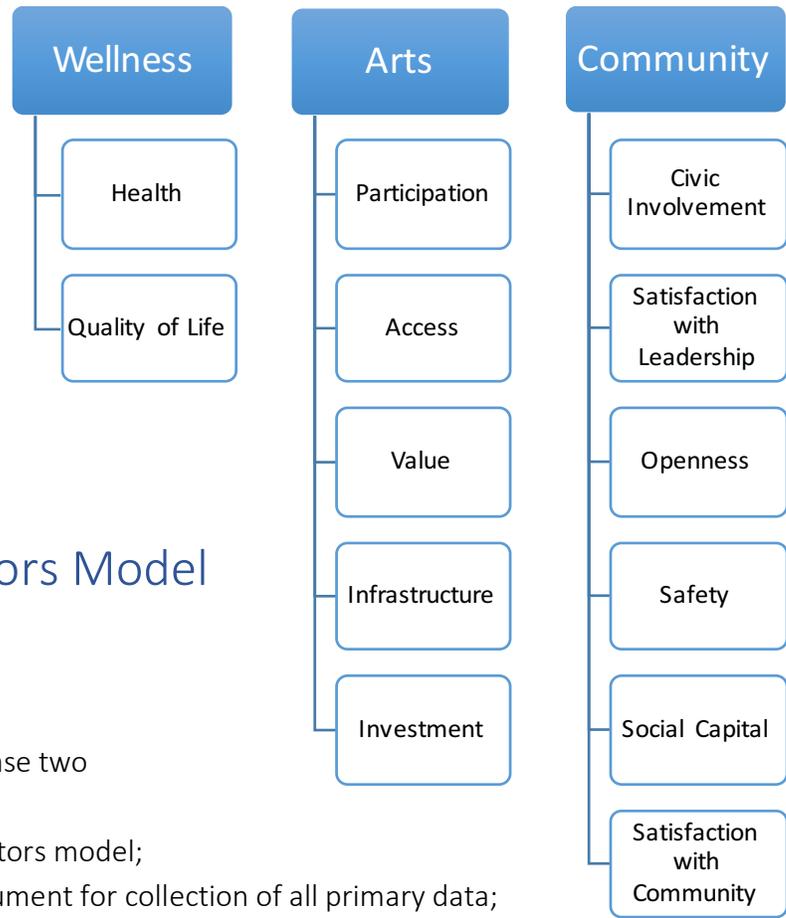
## Phase One

The project's first phase had three primary aims: 1) to investigate existing models and similar projects for associating the arts with wellbeing at the community level; 2) to design a set of indicators and a model for assessing the impact of arts participation on community wellbeing; and 3) to collect new data to test this model and its effectiveness as a tool for empirical research. In this first year, we conducted a literature review, analyzed existing models, developed an initial set of indicators and a model for testing, developed a set of pilot survey questions as a means for testing our model, and tested the survey with Florida residents. The model used an exposure variable of informal and formal arts participation, covariates of age, gender, race, employment, marital status, education, emotional support, access to the arts, and quality of life in the community, and response variables of self-reported health ratings and life satisfaction. A ten-question survey instrument was developed and used to test the model. The survey was completed by a representative sample of 500 adult Florida residents via telephone, using a random-digit approach. Chi square tests and two adjusted multivariable logistic regression models were used for data analysis.

**Phase One Key Findings.** Phase one generated four key findings. In the sample (n=500), 79% of respondents who participated in arts activities reported being satisfied with their lives as compared to about 69% of those who did not participate in arts activities. A majority (90%) of respondents who reported participation in either or both formal and informal art forms rated their health as good, very good or excellent as compared to 75.5% of respondents who did not participate. A higher proportion of respondents who participated in art activities were also likely to perceive their community quality of life as high (57.4%) relative to those who did not (41.4%). Participation in the arts was also positively associated with having emotional support (AOR 3.1). When all other variables in the model were adjusted for, participation in art activities was significantly associated with life satisfaction. Respondents who participated in art activities were more than twice as likely to report being satisfied with their lives than those who did not participate. Finally, the study demonstrated that it is feasible to conduct a study with a representative sample specific to Florida in order to understand the association between arts participation and health and wellbeing.

## Phase Two

### The Arts & Wellbeing Indicators Model



In 2016-17, the project team executed phase two of the project, undertaking:

- 1) revision and finalization of the indicators model;
- 2) development of a single survey instrument for collection of all primary data;
- 3) identification of secondary data sets;
- 4) testing of various methods for primary data collection in three Florida counties; and
- 5) development of a preliminary statistical model for analysis of primary and secondary data.

A single 25-item survey instrument was developed in English and Spanish, and used to collect primary data that would address each of the model's variables. The survey included validated items from the National Institutes of Health (NIH) PROMIS Global Short Form (10 items), the Short Flourishing Scale (8 items), items tested in Phase One, and new items that were developed based on review of 41 similar surveys conducted in the United States between 1973 and 2015. It also identified and evaluated 53 potential secondary data sets representing the state of Florida, developed a set of variables from these data sets for use in the statistical model, and determined that the secondary data had limited usefulness in the statistical model.

Phase two tested various methods of survey data collection, analyzed the collected data, and established the statistical model. Chi square tests, Fishers tests and adjusted multivariable logistic regression models were used, controlling for a number of indicators and covariates, to assess the differences among levels of participation in the arts by physical and mental health, personal well-being, socio-demographic variables, community vitality indicators and perception of access to the arts and health. Adjusted multivariable logistic regression models measured the association of participation in the arts with health as a four-level variable, adjusted to control for all other covariates.

**Phase Two Key Findings.** In Alachua County, more than 60% of those who had participated in arts activities reported very good or excellent health as compared to about 38% of respondents who did not participate in any art activity in the past year. However, no differences in health rating were found in Miami-Dade County with more than 60% of respondents reporting very good or excellent health across arts participation categories.

Findings indicated that when all other variables in the model were adjusted for, participation in art activities was significantly associated with physical health as measured by a standardized tool. Respondents who had been involved in some form of art activity were about 8-10% more likely to report increased physical health as compared to those who did not take part in any art activity in Alachua County. Self-reported health rating was positively associated with participation in formal arts activities as compared to none in Miami-Dade County. Those who had participated in formal arts activities in the last 12 months were almost six times more likely to report their health as very good/excellent as compared to those who did not. Community vitality indicators such as civic involvement, social offering, leadership and social capital were all significantly positively associated with participation in formal arts activities.

Various methods of survey data collection were tested in terms of feasibility, efficiency, and cost effectiveness. Electronic administration of the survey, via iPad, was found to be the most effective interface for survey administration. Overall, the phase two study found that it is feasible to assess participation in the arts and health related variables in Florida using three methods of data collection—electronic with an iPad, paper and pencil, and telephone. It is also feasible to assess several community vitality indicators such as aesthetics, leadership, and openness of the community towards diversity, social offerings, civic involvement, social capital and safety with the survey.



# Phase Three

The third phase of the project (2017-18) included three primary objectives:

1) testing and documentation of the statistical model; 2) development of toolkits to guide survey administration and analysis; and 3) development of conclusions regarding the usefulness and reliability of the Indicators. It included primary data collection in seven counties, analysis of the data, and testing of the statistical model. It also tested revisions to the survey instrument, and development of two toolkits.



Data from Alachua, Broward, Miami-Dade, Orange, Seminole, Osceola, Bradford, and Putnam counties was analyzed individually and also combined to increase statistical power. The combined data (n=1,444) provided the strongest analysis, as it represented an over-sampling at the state level. The analysis used the exposure variables of formal and informal arts participation over the past 12 months and response variables related to global physical and mental health (NIH PROMIS Global (10)), self-perceived functioning in areas such as engagement, relationships, self-esteem, meaning, purpose, optimism, and psychological well-being (Short Flourishing Scale), and self-reported impact of the arts on individual and community quality of life.

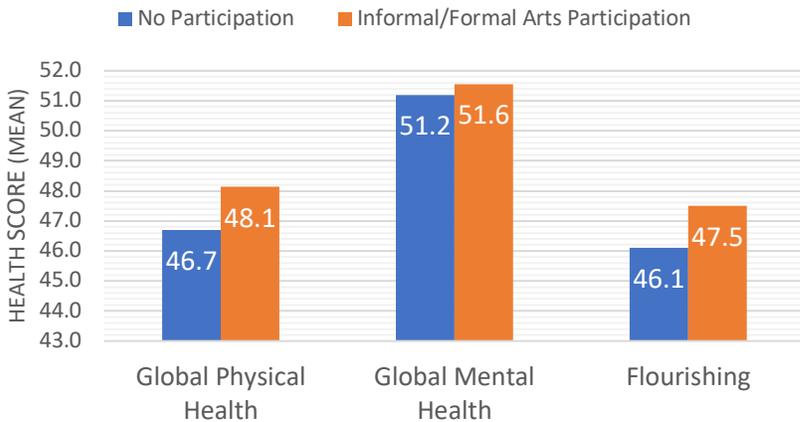
Community vitality variables, including aesthetics, leadership, openness, civic involvement, social capital and safety, were also used. Covariates included age, gender, race/ethnicity, employment, marital status, education, income, availability and access to the arts and to healthcare, health care insurance and health check-up status.

To obtain our results, we performed three different types of statistical modeling. We assessed global health, quality of life, healthcare utilization, social capital, safety, openness, civic involvement and demographics as predictors of arts participation. Viewing arts participation as a four-level outcome served to characterize participants' informal and formal arts. Given their significance in chi-square testing, these predictors were added to the model. For the community vitality factors, we created indices to account for all questions measuring indicators such as social capital, openness and civic involvement. Indices also helped with reducing the number of parameters present in the statistical model.

We assessed art participation, gender, age, race/ethnicity, education, income, and healthcare utilization as predictors of global health using linear regression modeling, which provided a measure of how much arts participation accounted for the variance observed in health assessment. Lastly, using secondary data, we assessed arts participation, demographics, and community vitality as individual-level predictors of county-level cultural and arts expenditures.

**Phase Three Key Findings.** Overall, there is a predicted influence of arts participation on physical and mental health. Those who participate in the arts were more likely to rate their mental health, physical health and quality of life positively, compared to those who do not participate. Additionally, it seems that arts participation may be a better indicator of mental health outcomes than of physical outcomes.

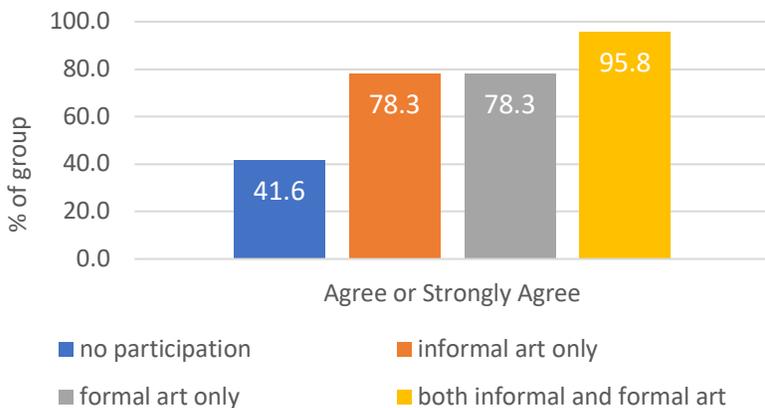
Health and Flourishing by Arts Participation



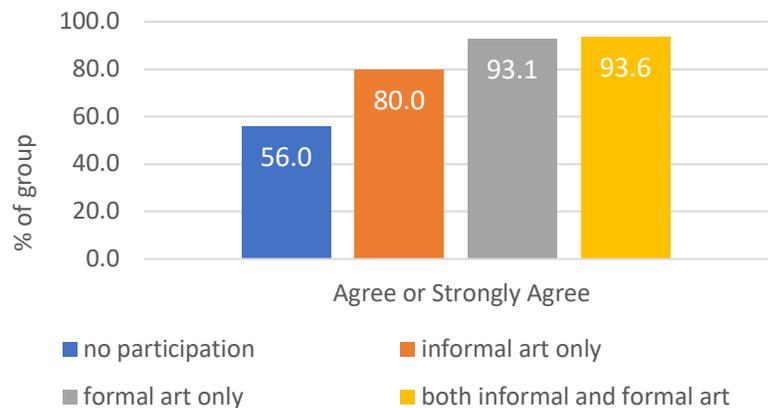
Cross-sectionally, higher scores for global physical and mental health, as well as flourishing, were found for those who participate in the arts. After adjusting for potential confounders, we found a strong association between the arts contributing to personal quality of life with participation in the arts. Arts participation explained 7% of the variability seen in global mental health scores and 5% of the variability seen in global physical health scores, nearly twice the variability explained in short flourishing scale score.

Additionally, individual perceptions of the arts contributing to personal and community quality of life was highly associated with arts participation. However, this perception was also relatively high among non-participants, suggesting a high overall belief in a relationship between the arts and wellbeing. Nearly all (78-96%) of those who participated in the arts perceived arts participation as contributing to their personal quality of life, while 42% of those who did not participate reported the same perception. Similarly, 80-94% of arts participants perceived the arts as contributing to the wellbeing of their community, while 56% of those who did not participate report the same perception.

Personal quality of life



Community quality of life



Phase three included exploratory testing of integration of secondary data sets, including arts expenditures data, in the statistical model. In a three-county test, when adjusting for covariates, we found that each estimated increase in dollars spent by cultural audiences increased the global mental health rating by 18%. However, no increase in wellbeing was detected from increased dollars spent by arts and cultural organizations. Further testing of this data integration is warranted.

A survey completion rate of 86% indicates a high level of usability and interest. In suburban and urban communities, in particular, interest in the survey and in the relationship between the arts and wellbeing was found to be very high among those invited to participate in the survey. This finding should be tempered with the understanding that the survey was administered in urban and suburban communities primarily by representatives of arts organizations and often at arts-related events.

Overall, the Arts and Wellbeing Indicators model was found to be most effective and appropriate for use in urban and suburban communities. The cost of implementing the Arts and Wellbeing Indicators model was found to range significantly depending on the methods used for surveying, the human resources available, and size of the community. Average costs (per survey) were lower in larger communities and higher in smaller communities. In testing within nine Florida communities, the cost per community for implementing the model, including training, surveying and analysis, ranged from \$2,500-\$8,000.

**Most significantly, the results indicate that the current model is effective and reliable in associating arts participation with wellbeing at the community level.**

Additionally, the analyses demonstrated that it is feasible to incorporate primary data collection with secondary data sources to assess the holistic impact of the arts on wellbeing. Analyses also demonstrate that it is feasible to integrate county-level arts expenditures data with individual data. The findings suggest that electronic means of data collection are most effective and cost-efficient, particularly in suburban and urban communities, and that a range of methods may be used for data collection.



Wynwood Walls

For more information, including the full report and toolkits for using the Arts & Wellbeing Indicators, visit [arts.ufl.edu/cam](https://arts.ufl.edu/cam)

