



Project HEAL

The Artist as Catalyst for Change

HEALTH IMPACT
ASSESSMENT

Table of Contents

Framing Project HEAL by IDEAS xLab

Preface: Convergence of Culture, Community, and Science

What is Project HEAL?

1. *Who is behind it?*
2. *Where is it located?*
3. *How does it work?*

Development Timeline

2015-2017 | PROTOTYPE: Proof of Concept

Community Description of Urban Prototype: Smoketown

Examples of Community-based Outcomes Experienced

- Area 1: Social Cohesion, Civic Engagement and Policy
- Area 2: Economic Impact
- Area 3: Healthcare access

Examples of Sector-based Influence Experienced

- Community Development Sector
- Arts and Culture Sector
- Health and Wellness Sector

2018-2020 | PILOT: What We Will Learn

- Community Development Sector
- Arts and Culture Sector
- Health and Wellness Sector

2020 -2030 | LONGITUDINAL STUDY: National Impact

Emerging Areas for Arts and Culture Innovation in Population Health

- Accelerating the Pace of Impact Through Upward Mobility
- Reframing Social Impact Models

HIA FINDINGS EXECUTIVE SUMMARY by LMPHW and IDEAS xLab

Findings of Health Impact Assessment (HIA)

What is an HIA?

Project HEAL HIA Focus Areas

1. *One Poem at a Time*
2. *Hero+Shero Journeys*
3. *Smoketown Laundry & Neighborhood Wealth Incubator*

Key Findings of HIA:

- Health Benefits
- Barriers to Reaping Health Benefits
- Recommendations for Maximizing Health Benefits of Project HEAL
- Recommendations for Ensuring Success of Project HEAL at other sites

FULL HEALTH IMPACT ASSESSMENT by Louisville Metro Public Health and Wellness, IDEAS xLab and the Commonwealth Institute of Kentucky.

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FRAMING

FRAMING Project HEAL

Note: The primary audience of this HIA is decision-makers and funders in 3 sectors: Community Development, Arts/Culture, and Health.

Preface: Convergence of Culture, Community, and Science

Project HEAL (Health. Equity. Art. Learning.) is a cultural blueprint for creative, just, healthy communities and a model that could potentially be replicated across America. It is guided by the unifying principle that health is culturally created. Project HEAL's arts and culture design for community health development is informed by a Health Impact Assessment (HIA).

Communities have their own best solutions for wellbeing. Science tells us that increasing civic engagement toward better policy is the most efficient way to create large-scale improvement in community health. Project HEAL activates the untapped potential of a community's arts and culture assets to become the catalyst for increasing government access and driving more equitable policymaking in order to positively impact health and wellbeing at population levels. Evaluation over time will be necessary to determine to what extent.

Policy is an imagining of the future. This is one of the core domains of all artists and an activity that is fundamentally cultural. To be sustainable, health and community development policies must find ways to become embedded in local cultures (Hangzhou International Congress on Culture and Sustainable Development, 2013).

After prototyping Project HEAL in Louisville, Kentucky (the focus of this HIA), IDEAS xLab and its partners are now raising funds to expand Project HEAL into a groundbreaking, 7-site pilot at the intersection of arts, community development and health.

The Project HEAL pilot strives to bring together diverse communities with businesses, government, organizations, entrepreneurs and researchers dedicated to a holistic approach to health and wellbeing. This work will involve a nascent national network of creative community health pioneers and foster a culturally responsive ecosystem of assets that help communities thrive.

Project HEAL is unfolding as a proclamation of connection and social justice, that seeks to establish the care and celebration of one another as the highest priority of arts in America.

What is Project HEAL?

Who is behind it?

Developed by a team of artists, curators, community activists, social innovators, health professionals and scientists, Project HEAL brings together people, research, tools and resources of three sectors: (1) Arts/Culture; (2) Community Development; and, (3) Health/Information Sciences.

Project HEAL is led by artist-innovation group, IDEAS xLab, and a team of public health researchers who use solid methods from several disciplines to evaluate the results through science.

Where is it located?

The focus of this Health Impact Assessment is on Project HEAL's urban prototype in Louisville, Kentucky. There is also a rural prototype operational in Natchez, Mississippi.

Once funding is in place (target date of January 2018), IDEAS xLab and its national network of partners are prepared to expand the prototype into a 36-month, 7-site pilot in Kentucky, North Carolina, Mississippi, Louisiana, Delaware and California.

How does it work?

Project HEAL deploys an artist-activated, social-lab process that uses various types of humanities-based approaches, artistic expression, media, and other strategies to explore both symptoms and root causes of local health challenges, identify leverage points, and create actionable policy initiatives and sustainable community development strategies that positively impact health and wellbeing.

Key Milestones & Activities

Timeline (Months 1-6)

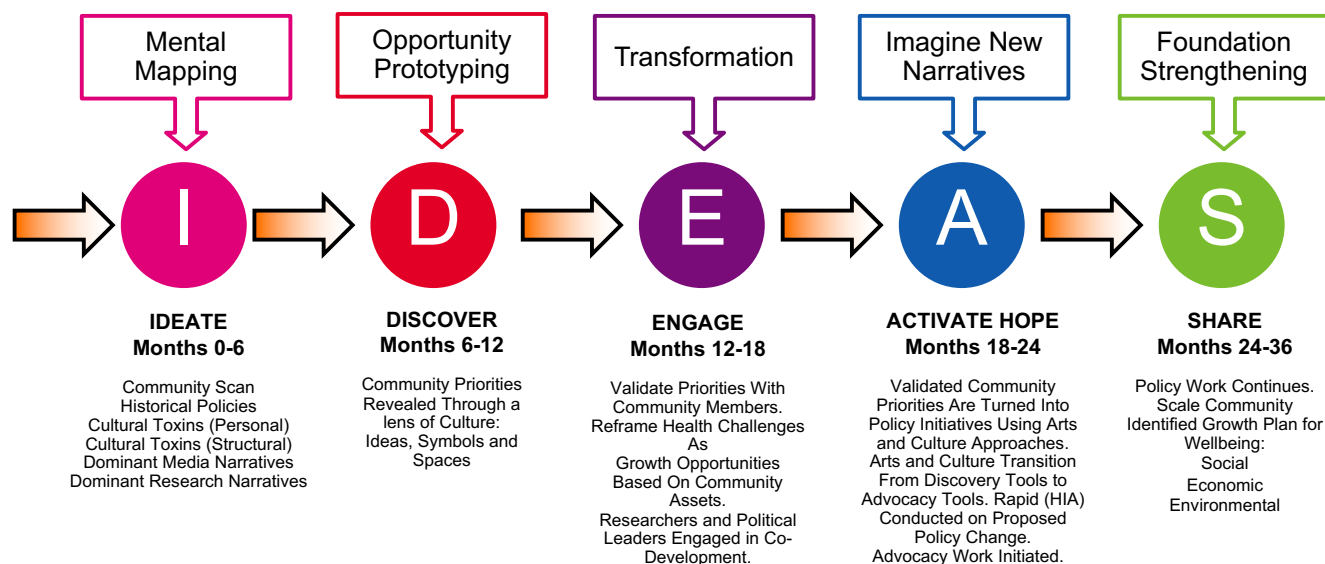
- IDEAS xLab provides on-site training in Project HEAL model for community leaders, artists, cultural organizers, and health professionals at each location.
- Through an innovative partnership with the City of Santa Monica's Office of Civic Wellbeing (CA), IDEAS xLab works with each site's Project HEAL team to create a "wellbeing index" for their community. This includes assessing 5 factors (data, impact, equity, culture, policy) of community readiness for change across 5 dimensions: Community; Place + Planet; Learning; Health; Economic Opportunity.



Project HEAL artists Greg Acker and Hamidou Koivogui lead drum circle in Smoketown as artist Cynthia Brown dances. Photo by Tyrone Turner, courtesy of Robert Wood Johnson Foundation.

5-Step Process for Arts Program Development

A full list of activities, milestones and examples of arts interventions available.



Timeline (Months 6-18)

- Project HEAL community designs and implements a series of arts and culture events, artist residencies and other cultural strategies designed to discover community priorities in three categories of health: social, environmental, economic.
- Supported by IDEAS xLab, Project HEAL sites develop a policy initiative and culturally relevant community development strategies from the discovered priorities.
- To inform months 18-36, a 60-day rapid Health Impact Assessment (HIA) is conducted in each community on their emerging Project HEAL policy initiative and strategies.
- A culminating cultural event featuring performance, exhibition and visioning report is produced as an artistic method of sharing the community-designed Project HEAL policy initiative and development strategies with leaders from government, business, health, education and other areas of civic life.

Timeline (Months 18-36)

- Arts and culture programming shift from “discovery tools” to “advocacy and education tools” in order to sustain engagement during the policy change process and to support implementation of culturally-based community development strategies.
- Project HEAL’s team of public health professionals conduct evaluation in each of the Project HEAL pilot sites.
- The “wellbeing index” created by each community is updated.
- IDEAS xLab and the evaluation team create a national wellbeing index that merges the work of all Project HEAL sites into one database and learning commons.

Development Timeline

Establishing Project HEAL as an Evidence-Based Population Health Program



2014-2017 | PROTOTYPE: Proof of Concept

Through a nearly 3-year prototyping phase, IDEAS xLab has tested the theory that health and wellbeing are culturally created. Project HEAL has proven to be a catalyst for improving creative capacity, cohesiveness, and civic engagement in both urban and rural communities. The result is a marked increase in awareness and implementation of equitable, health-promoting, community development policies. The following sections illustrate one community's Project HEAL journey.

Community Description of Urban Prototype: Smoketown

Project HEAL's urban prototype is located in the Smoketown neighborhood of Louisville, KY. Founded by formerly enslaved people after the Civic War, at 151 years old, Smoketown is Louisville's oldest Black community.

Though rich in cultural heritage, there are many adults in Smoketown who struggle financially and still can't pay their rent even though they are employed full time; hard working Kentuckians who have gotten squeezed out of the middle-class, or who have never able to make it there at all despite their best efforts. In 2011, the Internal Revenue Service ranked one of Smoketown's zip codes, 40203, as the 13th poorest in America (Courier-Journal, 2012).

Smoketown's young people come from schools where they navigate years of both opportunity and danger. As of 2015, the overall crime rate in Smoketown was 48% higher than the national average. There is a 1 in 24 chance of becoming the victim of any crime in Smoketown (Areavibes, 2015).

A person's neighborhood should not be hazardous to their health. Health is a necessary component for a community to thrive. Health begins long before an illness causes us to seek medical care. Health starts in our homes, our schools and jobs. Smoketown residents, just as all Louisvillians, should have the opportunity to make choices that allow them to live long, healthy lives, regardless of race, education or income.

The following early results arose from Project HEAL's urban prototype site in Louisville, KY (Smoketown).

Examples of Community-based Outcomes Experienced:

Arts and culture are increasing civic engagement in neighborhood development policy.

- A spoken word artist created a policy initiative to limit predatory advertising. Both Louisville Metro Department of Public Health & Wellness and Humana have supported the initiative with funding and as thought partners. (2017)
- Collaborative programming between artists and YouthBuild Louisville resulted in annual volunteerism in the Smoketown community rising from 350 individuals (2014) to over 1500. (2016)
- Project HEAL partners advocated for improvements to municipal government notification policies related to new liquor store licenses, resulting in Metro Government 's recommending denial of licenses to two new stores attempting to locate in Smoketown. The license applicants have appealed, and an administrative hearing of the Kentucky Department of Alcoholic Beverage Control is scheduled. Final determination pending. (2017)

Economic opportunity is beginning to improve for both the community and artists through collaborative cultural programming.

- Culinary and environmental workforce innovation with chefs and international groups, like the Potager du Roi (Versailles, FR), helped to create 35 new pre-apprenticeship jobs at Project HEAL's lead partner, YouthBuild Louisville. (2016-2017)
- More than 30 artists and cultural producers from 5 different countries produced projects in and with the Smoketown community through investment by IDEAS xLab. (2014-2017)

Healthcare access is being understood/operationalized in culturally-responsive ways.

- To improve access to prevention, screening and healthcare services, a community health worker was hired by a local health system to work full-time alongside the Project HEAL artists as part of the core team. (2016-2017)
- In a partnership with a digital marketing firm, graffiti art and poetry became the means for increasing online health literacy. The positive, culturally responsive messaging produced click-through rates 83% higher than traditional health sector ad approaches. (ElToro.com, 2017)
- A young poet is creating a podcast that uses poetry and first-person interviews to develop new insights into Kentuckians' shared cultural narrative around health access. The podcast is focused in Kentucky's oldest African American community, Smoketown (Louisville, KY) and the rural, Appalachian, White community (Jackson, KY) that is the focus of the NY Times' Best Seller, Hillbilly Elegy. (2017)
- Combining arts strategies with the science of the Medical Mistrust Index (an instrument to measure how mistrust of health care organizations leads to health care service underutilization), a medical student is engaged as a social justice scholar on the Project HEAL team to understand how physicians might improve patient care by bridging the trust gap with vulnerable populations (i.e., Black, LGBTQ+, etc.). (2017)

Examples of Project HEAL Sector-based Influence

Community Development Sector

- IDEAS xLab's expertise in creative placemaking, social entrepreneurship and community development attracted over one million dollars in national funding to Louisville that directly funded new cultural and health equity programs. (2014-2017)

- Louisville has a history of health innovation and is focused on growing this sector as a core economic driver. IDEAS xLab is helping to lead this work as part of a core team with the Metro Louisville Government Office of Civic Innovation and Humana’s Louisville Health Advisory Board.

Arts and Culture Sector

- Through IDEAS xLab’s advocacy and leadership, Imagine 2020, Louisville’s new regional arts and cultural master plan, is the first in the nation to include a specific population health research strategy – a key step in the effort to make Louisville the national thought leader in arts and public health.
- Americans for the Arts honored the collaborative work of Humana, IDEAS xLab and Fund for the Arts as one of the Top 10 Business-Arts Partnerships in America in 2017. General Electric and IDEAS xLab won the honor for their collaboration in 2015.

Health and Wellness Sector

- Louisville has a growing team of experts working at the intersection of arts, culture and population health research through the Center for Art & Health Innovation -- a partnership formed in 2017 between IDEAS xLab and the Commonwealth Institute of Kentucky at the University of Louisville School of Public Health & Information Sciences.
- For the work being done at the intersection of health equity, data-driven decision-making and social entrepreneurship in arts/culture, Louisville was recognized by the Robert Wood Johnson Foundation with its 2016 Culture of Health Prize. This is the highest honor given by the largest funder of healthcare in the world.

2018-2020 | PILOT: What We May Learn

Once funding is in place, IDEAS xLab will be ready to test replication and scale of Project HEAL’s prototype through a 3-year, 7-site pilot with diverse groups of communities. The following points illustrate what IDEAS xLab and its team of evaluators hope to learn.

While we intuitively know that we “feel better” when participating in arts and culture events or projects, our scientific knowledge on the link between art and health is largely limited to research on art and music therapy. In other words, we know about the impact on the individual. What about on an entire community or city?

IDEAS xLab’s replicable arts and culture model provides a framework for rigorously and scientifically assessing in what ways and why Project HEAL’s community-wide approach may:

1. Decrease social isolation and improve social cohesion and civic engagement.
2. Create policy changes that positively impact health equity.
3. Increase opportunities for building inclusive economies through social/cultural entrepreneurship.
4. Increase opportunities for improving social emotional skills in youth.
5. Improve wellbeing of communities experiencing chronic stress.

What Project HEAL Pilot Study Could Reveal

Community Development Sector

- Innovative methods for activating community capacity for self-advocacy toward more equitable policymaking.
- Ideas for cost-effective strategies to accelerate the impact of education and workforce development, creating more opportunities for upward mobility.

Arts and Culture Sector

- How free expression combined with equity (i.e., race, class, LGBTQ+, etc.) can positively impact health-induced economic insecurity and offer insights for improving upon existing community development models.
- Opportunities for arts and culture to greatly expand their scope and impact in the health and community development sectors as drivers of more inclusive economies and improved equity in governmental access.

Health and Wellness Sector

- Breakthrough thinking on how to quicken the pace and scale of community health improvement without focusing on personal behaviors as the main solution to serious health conditions and disparities.
- Expanded opportunities for hospitals and health systems to demonstrate community health benefit required by IRS for nonprofit hospitals and organizations.
- Evidence-informed arts and culture models for measurable improvements in health-related quality of life (HRQoL) at a population level.

2020 -2030 | LONGITUDINAL STUDY: Potential National Impact

This Health Impact Assessment is an important step toward bringing a rigorous, evidence-informed approach to Project HEAL's design and evaluation in Smoketown.

Expanding the Project HEAL prototype into a multi-site pilot will then inform the design and potential replication of Project HEAL (2020-2030) as a national longitudinal arts and culture program and scientific study. By 2030, IDEAS xLab's goal is (1) to establish Project HEAL as an evidence-based, arts and culture population health intervention that reduces chronic disease and increases healthy equity, and (2) to establish a credentialed training program for artists and cultural producers as a population health prevention workforce.

KEY INSIGHTS: Opportunities for Arts and Culture Innovation in Population Health

Opportunity Insight 1: Accelerating the Pace of Impact Through Upward Mobility

Today in America, a person's zip code matters more to their life expectancy than does their genetic code (County Health Rankings and Roadmaps). This disproportionately impacts low-income communities such as Smoketown. In general, feelings of social isolation, combined with lack of economic mobility, cause Appalachia and the South to bear some of the largest per capita burdens of poor physical health and depression (Appalachian Regional Commission [ARC], 2012; Centers for Medicare and Medicaid Services [CMS]). In total, depression in America costs society \$210 billion per year with 60% of this sum being related to anxiety and chronic/acute traumatic stress (Greenberg, 2015).

In both urban and rural environments, research finds that one of the most important indicators of life expectancy and quality of life - upward mobility - depends on government policies (Davis, 2015). The negative health impact of poverty is not just a health issue; it is a basic economic issue directly impacting economic resilience in communities across America.

In Smoketown, contemporary structural racism is a factor significantly impacting economic upward mobility and contributing to health disparities in the neighborhood. The Harvard Business Review recently reported that racial health disparities are associated nationally with substantial annual economic losses, including an

estimated \$35 billion in excess health care expenditures, \$10 billion in illness-related lost productivity, and nearly \$200 billion in premature deaths. Concerted efforts to reduce racial disparities could thus have immense economic benefits for all of society (LaVeist, Gaskin & Richard, 2011).

In an attempt to mitigate the economic impact of poor health due to poverty, health sector policy makers are increasing pressure on individuals to change their behavior and to take on the burden of austerity measures such as cuts in basic services. The sociologist Ulrich Beck describes this situation as an attempt to find “individual solutions to systemic contradictions” (Hassan, 2014). This kind of change initiative, which focuses on individual behavior, is difficult to implement and scale.

By operating at the organizational, community and policy levels, Project HEAL collectively considers and addresses the multi-dimensional aspects of poverty by using arts and humanities-based interventions to deepen and accelerate such social determinants of health as education opportunity and economic security.

Economists have proven that the longer children are exposed to better environments, the better they do economically in the future. In fact, according to the Greater Louisville Project’s analysis of data from the Brookings Institute (Focus on Poverty, 2016), simply bringing Project HEAL’s prototype neighborhood, Smoketown, up to the Louisville citywide average— by addressing policies that impact education and employment—would have significant impacts in Smoketown, as detailed in the table below.

	Difference
Low Income	950 fewer low income residents
Low Income Children	340 fewer low income children
Median Earnings	\$13,100 increase. If everyone currently working in Smoketown got a \$13,100 annual increase, it would be \$8.6 million for the neighborhood
No High School Degree	40 additional high school graduates
Bachelor’s Degree	170 additional bachelor’s degrees

Methods and sources can be found in the Appendix of A Focus on Poverty online at: http://greaterlouisvilleproject.com/wp-content/uploads/2016/11/CCU15-Focus-on-Poverty-Appendix_Final.pdf

Over the course of time, arts and culture may accelerate the rate of change within these underlying social determinants, benefitting society-at-large by lessening the burden of health-related economic-insecurity.

The Project HEAL HIA directly addresses the impact of arts and culture on factors that are scientifically proven to positively impact upward mobility for low-income communities such as: increased levels of civic and community engagement; more equitable policies; more quality opportunities for educational achievement; greater racial and economic integration with improved economic security.



“Planting seeds early
to cultivate a healthy
generation.”

Example of One Poem at a Time billboard. Cleanna Thomas picks radishes in the garden outside her Smoketown home. Photo by Josh Miller.

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Opportunity Insight 2: Reframing Social Impact Models

America leads the world in medical research and medical care, and for all we spend on health care, we should be the healthiest people on Earth. The US spends 18% of its annual gross domestic product (GDP) on health. In 2015, this amounted to \$3.2 trillion, a figure equal to Germany's economy (Galea, 2017).

Yet for some of the most important indicators, like how long we live, we're not even in the top 25, and instead lag behind countries like Bosnia and Jordan (Geoba.se, 2017).

It's time for America to lead in health, and that means taking three steps.

The first is to ensure that everyone can afford to see a doctor when they're sick.

The second is to make preventive care, like screening for cancer, available to people who otherwise won't or can't go in for it.

The third is to stop thinking of health as something we get at the doctor's office but instead as something that is rooted in the culture of our families, neighborhoods, schools, and workplaces.

The more health is seen this way, the more opportunities are available to improve it. Still, our solutions will only be as good as our ability to listen each other, to understand each other, to work together, to value the insights that different people can bring to the table, and to see our future as connected.

In Washington, our government is polarized and the political process is gridlocked. Therefore, it increasingly falls upon local communities to develop their own best solutions for improving health and wellbeing.

However, a 2016 survey by the Pew Research Center showed that:

- Only 15% of Americans have participated in a service or civic organization in the past year;
 - Only 25% have contacted or visited a public government official in the last year;
 - Only 33% have participated in a school group or community organization; and,
 - Only 46% have worked with people in the neighborhood to fix a problem.
- (Pew Research Center, 2017)

Even in divided times, there is cause for hope: the number of people involved in social change initiatives, the increasing amounts of money being invested in those initiatives, the steadily declining costs of technology and the attention being given to social innovation and creating inclusive, resilient economies.

To America's growing social innovation movement, Project HEAL introduces arts and culture as the key driver for learning, action and evaluation by communities seeking to increase social cohesion and civic engagement toward greater participation in policy making and improved wellbeing.

As we have seen with the "curb cut effect" - the idea that laws and policies created to help vulnerable groups ultimately benefit all members of society – investing in Project HEAL's arts and culture model may create advantages that can ripple far and wide (Blackwell, 2017).



Project HEAL artist Andrew Cozzens installs Smoketown Life|Line Sculpture for the launch of One Poem at a Time in Smoketown.

Cozzens created the sculpture with community members by listening to their stories to understand the impact of collective trauma and to visualize the multi-dimensional impact of poverty in a new way. He used color coding to indicate the type of trauma or adverse experience that took place at each bend. Photo by Josh Miller.

EXECUTIVE SUMMARY



HIA FINDINGS: EXECUTIVE SUMMARY

Findings of Health Impact Assessment (HIA)

Health Impact Assessment (HIA) Description

A Health Impact Assessment is an information-gathering tool employed to systematically evaluate the potential, and sometimes unintended effects, of a proposed project, plan, program or policy on the health of a population, and the distribution of those effects within the population. Equity, democracy, sustainability, transparency, and social justice are core tenants of an HIA.

Project HEAL HIA Focus Areas

Project HEAL is a cultural blueprint for creative, just, healthy communities and a model that could potentially be replicated across America. Project HEAL is designed to activate the untapped potential of a community's arts and culture assets, and to become the catalyst for health and wellbeing at a population-level. Its focus is on policy change and creation of additional place-based pathways for upward mobility.

This HIA used arts and culture venues, strategies, tools and programs as the primary data collection method for completing the Screening and Scoping phases of the HIA in Smoketown.

Though Project HEAL operates across multiple social networks, this HIA focuses on 3 of 5 identified social networks within the Smoketown community: live; learn; and, work.

Furthermore, the screening and scoping process led to a focus on 5 Social Determinants of Health (SDOH):

1. Social Isolation, Social Cohesion
2. Civic Engagement in Policy Making
3. Educational Achievement Opportunity
4. Economic Wellbeing
5. Physical Environment

Ultimately, this HIA analyzes 3 components of Project HEAL in Smoketown:

1. *One Poem at a Time*

- Primary Arts Intervention: An arts activism initiative and social sculpture that uses poetry and Photovoice -- a technique that combines photography, dialogue, and social action to address the community issues. Replaced negative outdoor messaging on billboards and posters in the Smoketown neighborhood. Developed a collaborative website, SmoketownVoice.com, to increase neighborhood communication related to heritage, health and health policy.
- Policy Focus Area: Reducing negative health impacts of predatory advertising in low-income census tracts with high level of health disparities.
- Primary Social Network: People who live in Smoketown.
- Social Determinants of Health Impact: Social Isolation, Social Cohesion, Civic Engagement in Policy Making, Physical Environment



1) Attendees participate in One Poem at a Time historical poetry walk. 2) One Poem at a Time billboard installed in Smoketown outside Shirley Mae's Cafe. Photos by Josh Miller.

2. Hero+Shero Journeys

- Primary Arts Intervention: An artist residency program at a Smoketown middle school combined art, creative writing, and data science with environmental justice to allow 6th grade students to explore how they might turn their school into a health policy innovation hub.
- Policy Focus Areas: Increasing educational opportunity and reducing racial and economic segregation to improve environmental health.
- Primary Social Network: Youth who are part of learning environments in Smoketown and their families.
- Social Determinants of Health Impact: Social Isolation, Social Cohesion; Civic Engagement in Policy Making; Educational Achievement Opportunity; Physical Environment

3. Smoketown Laundry & Neighborhood Wealth Incubator

- Primary Arts Intervention: A social and cultural entrepreneurship project developed by arts and humanities professionals to provide a sustainable revenue stream for neighborhood programs which can support aspects of “everyday life” in the Smoketown community. Will ultimately include:
 - o A fully-functioning community laundry equipped with pay for service washers and dryers;
 - o Serving as a community center and socializing space for Smoketown residents, and a meeting space for non-profit organizations and community groups like the Smoketown Neighborhood Association;
 - o A small business incubator focused on worker-owned social enterprise models;
 - o Full-time community health workers;
 - o Arts and culture programming co-designed with community in order to increase civic engagement and activism among community members. For example, Black History courses will be taught by Black artists and developed with the support of Black historians and universities;
 - o Providing low-income housing for homeless young adults who are attending the vocational education and training programs at Smoketown’s YouthBuild Louisville.
- Policy Focus Area: Advocating for community development policies that increase place-based opportunity and reduce racial and economic segregation.
- Primary Social Network: Smoketown residents and those engaged in workforce development in Smoketown.
- Social Determinants of Health Impact: Social Isolation, Social Cohesion; Civic Engagement in Policy Making; Educational Achievement Opportunity; Economic Wellbeing; Physical Environment

Key Findings of Assessment

Artists and culture producers cannot alone solve entrenched, pressing societal challenges. There are few population health interventions that can show a direct cause and effect correlation. However, through the Project HEAL model, artists can be catalysts in their communities for improved health equity.

Through Project HEAL, Smoketown residents may experience positive impacts in the following areas of community health.

Primary Benefit: Increased social cohesion toward improving equity in policy.

Project HEAL offers potential innovation of current practice and research regarding the relationship between arts and culture and social cohesion. As an evidence-informed, outcomes-based model, Project HEAL may serve as a catalytic framework for communities to experience opportunities for building social cohesion to specifically influence policy and promote health equity. Project HEAL's multi-faceted approach operates on both the personal and structural levels of community transformation. By doing so, it potentially offers a cost-effective, efficient way to understand new possibilities for fostering greater social cohesion and trust-building between community members and institutions as they work together to achieve a specific health-related outcome in community, organizational or public policy.

A cohesive society is one where people are protected against life risks, trust their neighbors and the institutions of the government, and can work towards a better future for themselves and their families. Fostering social cohesion is about striving for greater inclusiveness, more civic participation and creating opportunities for upward mobility. It is the glue that holds society together.

Social cohesion is built around three key values: social inclusion, social capital and social mobility. Social inclusion refers to the degree to which all citizens can participate on equal footing in the economic, social and political life, including whether people are protected in times of need. Social capital refers to trust between people and in institutions and the sense of belonging to a society. Social mobility refers to equality of opportunity to get ahead (United Nations, 2012). Project HEAL is designed to simultaneously operate across all three value areas of social cohesion.

Promoting social cohesion requires the joint involvement and active collaboration of all stakeholders of a society – government, businesses, and civil society - to address collective action. Project HEAL's approach combines the people, tools and resources of three different sectors (Arts and Culture, Community Development, Health and Wellness) into one model in order to impact community-wide health.

Project HEAL's arts and culture approach will likely create additional social connections between community members and stakeholders. Years of research have firmly established social connection's link to psychological and physical health benefits. Since the 1980s, loneliness among adults increased from 20% to 40% (US Surgeon General Website). This is not only the result of shrinking household sizes, but also stems from friends and biological family who are geographically and emotionally disconnected from one another.

Social connection is believed to give one a sense of similarity with people normally considered different from oneself. This encourages a feeling of positivity which can then beneficially affect mental and physical health. Socially active individuals report above average levels of happiness, lower levels of anxiety and depression, and better resilience in stressful life situations and events. This state of wellbeing is in turn linked to improved health outcomes.

However, field tests carried out at art associations and various cultural projects in the Netherlands have shown that people who take an active part in cultural activities largely demonstrate connective cohesion on the basis of the things they have in common. The tests showed that art or culture rarely served to unite people who do not have a lot in common. Researchers concluded that only work that is challenging enough serves to bridge the natural gap between people from different backgrounds. This doesn't mean that it is necessarily wrong to try to unite people through art, but it does mean that we should have a clear vision before investing cultural resources in promoting social cohesion (Otte, 2015).

By engaging community members in a challenging model of artistic production that combines qualitative and quantitative data and research, using the arts as a lever for policy change, and creating opportunities for culture to become a catalyst for opening additional pathways to upward mobility, Project HEAL provides a cultural framework

for identifying and scaling approaches that increase social cohesion as part of an inclusive community health and development agenda.

Project HEAL moves beyond a generalized relationship between arts and social connection. Potentially, this innovation offers an evolutionary model for incorporating health equity as a core policy component of community development.

Other potential benefits of Project HEAL’s unique arts and culture model include:

- **Enhanced academic performance among students:** Studies have shown positive academic and social outcomes for at-risk teenagers receiving arts education. It is suggested that the arts affect academic performance by enhancing cognition. Also, a positive correlation was established between the arts and school readiness, academic achievement, and lower juvenile delinquency rates.
- **Increased opportunities for social and economic wellbeing:** When compared to peers not engaged in the arts, low-income students involved in the arts are more likely to have attended and done well in college, to be gainfully employed, to volunteer in their communities and to participate in the political process through voting. By featuring a business incubator within the Smoketown Laundry & Neighborhood Wealth Incubator, economic wellbeing in Smoketown is likely to be impacted because the incubator will support small business development. Research shows that small business contributes to the creation of social value in communities and society. (Ribeiro-Soriano, 2017)
- **Reduction in targeted racism and its ensuing negative health outcomes:** Research shows that perceived neighborhood disorder, in the form of haphazardly placed billboards and posters, negatively influences health among those in the surrounding areas. Furthermore, the high advertisement density in predominantly Black neighborhoods is a form of racism, which then puts residents at risk for the associated adverse health outcomes of targeted racism. Reducing the density of messaging on neighborhood billboards will most likely serve as a health protective factor in a community.
- **Increased opportunity for improving the environmental health:** Using a middle school as a policy innovation hub, for designing collaborative environmental justice programming with youth, could potentially help mitigate the negative health impacts and related costs stemming from environmental racism.



Artist Dominique Paul with students at Meyzeek Middle School. Photo by Josh Miller.

Barriers to Reaping Health Benefits

The opportunity to increase social cohesion, promote civic engagement, enhance academic performance, increase economic wellbeing, and improve the physical environment could result in improved health outcomes for Smoketown residents.

However, such positive health outcomes can only be achieved if the potential barriers to Project HEAL in the Smoketown community are also addressed.

Barriers that may prevent Project HEAL from positively impacting health outcomes include:

- Preconceived notions of the arts and their intended audience / participants.
 - Perception with the arts of “that’s not for me” or “I’m not creative.”
 - Many may incorrectly believe that one must have innate talent or aptitude in order to participate.
 - There may be the perception that the arts are a luxury meant for others, and are not for enjoyment by all.
- An important barrier is one of financing multi-dimensional impact initiatives like Project HEAL. Capital-intensive projects in the traditional community development arena, or in the emerging field of creative placemaking, are labor intensive and time consuming when compared with traditional real estate transactions. Organizing the political will, gaining community support, and assembling often layered financing can easily take three- to five-years to complete. Intentionally directing a flow of commercial capital for creative placemaking will require a sustained commitment to fostering a network of resources that allow for a capital-ready environment. (Hattem, 2014).
- Project HEAL must overcome barriers to accessibility – in light of recent shootings and homicides in the Smoketown neighborhood, residents may be hesitant to venture far from their homes or walk through their community to participate in Project HEAL programs. Not having ready access to a car or other transportation options may also discourage them from taking part in the arts programming offered at Project HEAL locations.
- Outdoor advertising proliferation and the development of land use regulations in Louisville illustrate the complicated nature of balancing the economic and physical aspects of urban development. Regulating outdoor advertising is part of a movement to control the spatial structure of the consumer economy and manage the appearance of the landscape through zoning. The efforts of planners to regulate outdoor advertising are frequently challenged legally or stalled by political indecision. Project HEAL’s One Poem at a Time will need to present a compelling argument that focuses on the negative health impacts of uncontrolled outdoor advertising. This argument must be strong enough to withstand attacks from outdoor advertising industries, which reap financial gains from encouraging the spectacle of consumer landscapes. (Lowery, 2015).
- Depending on the design of the Smoketown Laundry & Neighborhood Wealth Incubator, energy efficiency and environmental hazard issues could pose new environmental health concerns for those living in close proximity to the community laundry.
- Possible “neighborhood school” legislation in the Kentucky State Legislature could increase segregation in Smoketown schools, which currently benefit from school board policies that promote diversity. An analysis by the Jefferson County Public School transportation department shows the wide-ranging consequences of HB 151: only about half of the current high school students, about 38 percent of middle school students and about 34 percent of elementary school students live close enough to their current school that they would have the right to attend it under the proposed law. Because Jefferson County remains largely segregated in housing based on race and income, the proposed policy may reduce diversity in Smoketown schools. (Kentucky Legislature, 2017; Watkins & Ross, 2017).

Recommendations for Maximizing Health Benefits of Project HEAL

1. Assure Smoketown stakeholders that the arts are inclusionary and open to everyone, especially Smoketown residents. IDEAS xLab should implement a robust marketing campaign to publicize the arts programming and services available through Project HEAL. It is important to convey to residents that active and passive participation in the arts is meant for all, regardless of race, education level and socioeconomic status.
2. Efforts must be made to increase residents' access to Project HEAL sites and programs. Project HEAL's community health worker is pivotal to this strategy.
3. Market arts programming to youth as a long-term strategy to improve educational achievement within the Smoketown community. Offer arts programming in the form of arts-based experiences that combine the humanities and social studies with science, technology, engineering and math. The Hero/Shero Journeys Project could be a foundation for developing a replicable curriculum that can achieve this goal.
4. Advertisements are so omnipresent in modern society that it's almost impossible to imagine the world without them. However, in a sweeping global trend, to eliminate the "visual pollution" caused by advertising signs and billboards, many cities are forfeiting revenue and taking back public spaces. The U.S. states of Vermont, Maine, Hawaii, and Alaska have banned billboards, and approximately 1,500 cities nationwide have limited public advertising. It's not just aesthetic—the movement is a part of a larger conversation about culture and human rights and potentially undermines the historic purpose of public spaces, which is to represent the character and achievements of its inhabitants. As expressed by Ms. Farida Shaheed, Special Reporter for the United Nation's field of cultural rights, "Cities that wish to protect cultural diversity... must protect their societies from undue levels of commercial advertising and marketing, and ensure that public and civic spaces remain spheres for deliberation, cultural exchange, social cohesiveness and diversity, places for debate and discussion, artistic and other self-expressions" (Kinney, 2017). To be successful, Project HEAL may need to engage in a public campaign that (1) defines the policy issue narrowly so that it can be acted on in ways that avoid infringement on First Amendment rights, and (2) has enough funding to sustain what will most likely be a prolonged process against the well-funded advertising industry.
5. Project HEAL should continue to develop and market arts and culture programming geared toward developing evolved, evidence-informed models of social justice. Project HEAL should use the arts as a long-term strategy both (1) for building capacity among Smoketown residents, and (2) for other community stakeholders to become more civically engaged in community development policy related to matters such as zoning, as well as other local or state rules, ordinances or laws that potentially cause increased racial or economic segregation.
6. Lastly, maximizing health benefits of Project HEAL will require overcoming a significant barrier of financing Project HEAL. In a recent report entitled "Creative Places and Businesses" Upstart Co-Lab, a fiscally-sponsored project of Rockefeller Philanthropy Advisors, defined part of the challenge this way, "The Creative Economy in the U.S. is more than \$704 billion or 4.2% of U.S. GDP. But currently, 0% of impact investment is in the arts & culture sector" (Calvert Foundation and Upstart Co-Lab. (2017). This will require IDEAS xLab to work closely with investors, public health researchers and those who might bear the cost of healthcare (i.e., employers and insurers). Collectively, the group will need to develop shared definitions and metrics, and increase capacity for community lenders. One area of scalable innovation that Project HEAL may be able to offer, because of its focus on population health, is to develop a social impact or pay for success financing model tied to quantifiable community health outcomes.

Recommendations for Ensuring Success of Project HEAL at other sites

Much of the credit for Project HEAL's successful implementation in Louisville, KY is due to the dedication, passion, enthusiasm and tenacity of both the IDEAS xLab team and the public health research coordinators at the University of Louisville School of Public Health & Information Sciences. It would be beneficial, if not necessary, to have local leadership teams with similar qualities at future Project HEAL sites.



FULL HIA

FULL HEALTH IMPACT ASSESSMENT by Louisville Metro
Department of Public Health & Wellness, IDEAS xLab and the
Commonwealth Institute of Kentucky.

TABLE OF CONTENTS

INTRODUCTION: LOCATION, INFORMATION, AND HISTORICAL TIMELINE

Historical View	2
Adding Arts & Culture to the Transformation Process	4
The Pivot to Project HEAL	6
Current Conditions in Smoketown	10

BACKGROUND OF THE PROJECT HEAL HIA 23

Screening
Scoping
Assessment

PROJECT HEAL ASSESSMENT

Impact of One Poem At A Time	31
Impact of Hero+Shero Journey Project	38
Smoketown Laundry & Neighborhood Wealth Incubator	52
Conclusion of Assessment Section	64
Closing Essay and Poem by Theo Edmonds and Hannah Drake	67

HIA RECOMMENDATIONS 74

MONITORING AND EVALUATION 76

REFERENCES 82

ABOUT THE AUTHORS 94

APPENDIX 96

FULL HEALTH IMPACT ASSESSMENT

INTRODUCTION: LOCATION, INFORMATION, AND HISTORICAL TIMELINE

I. Historical View

Located on the Ohio River in the most populated county of Kentucky, Louisville is a city of vast opportunities and diverse neighborhoods. It is also home to the region's most concentrated development of healthcare providers, as well as medical and aging related commerce. Louisville is renowned for the Kentucky Derby horse race, the Louisville Slugger baseball bat factory, and headquarters companies like YUM! Brands, Brown-Forman, and Humana. The city annually hosts hundreds of conventions, festivals, sporting events, and tourism that all take advantage of local businesses and the robust food and bourbon industry. With a population of about 765,000, Louisville has a vibrant entrepreneurial community, dozens of colleges, a plethora of community-based organizations and several nationally-known arts organizations like the long-established Actors Theatre of Louisville, the Louisville Ballet and the emergent artist innovation group IDEAS xLab.

Nestled within this 250-year old city is the neighborhood of Smoketown. Founded by formerly enslaved people after the Civil War, Smoketown is Louisville's first and oldest historically African American neighborhood. Smoketown is rooted in a rich history of artistic expression, community and innovation that dates back to the 1850s. Since its formative years, Smoketown has benefitted from assets such as schools, churches, community centers, theaters and libraries to accommodate the needs of its residents and to educate, entertain and nurture the lives of those who live, learn, and work within its little over 100 acres. Once a densely populated neighborhood of 15,000, Smoketown residents now number around 2,000.

While rich in history and culture, Smoketown residents are of lower socioeconomic status compared to the Louisville average (Louisville Metro Department of Public Health and Wellness [LMPHW], Center for Health Equity [CHE], 2014). Years of racial segregation and other detrimental policies have had lasting implications for

the wellbeing of Smoketown residents and for the opportunities they have to be healthy. Even in 2017, Time Magazine ranked Louisville the 8th most economically segregated city in America (www.healthylouisvillemetro.org). Historically, low housing quality, high concentrations of poverty, and limited access to quality education in the neighborhood have caused Smoketown residents to experience greater stress and to have a higher risk of illness and death. Even though it sits directly adjacent to the highest concentration of health, hospital and physician services in the state of Kentucky, Smoketown fares poorly compared to the rest of Louisville in health outcomes:

- o The life expectancy is almost 9 years shorter than the Louisville average (www.healthylouisvillemetro.org)
- o Only 10.3% of residents (25 and older) have a bachelor's degree or higher;
- o Death rates attributable to poverty are 6.5 times the city average (LMPHW, CHE, 2014).

Health has long been defined as simply not being sick (Bridges & Edmonds). In fact, the World Health Organization (WHO) defines health as “a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity.” But there is now a growing awareness that health and wellbeing are heavily influenced by complex social factors such as where we live, how we learn, and how we work. Data from the Robert Wood Johnson Foundation (RWJF) shows that socioeconomic factors have the biggest influence on health – around 40%. When combined with physical environment, these factors contribute to half or 50% of health outcomes.

The growing recognition of the impact of social determinants of health spurred the formation of public - private partnerships using innovation and entrepreneurship to generate a more integrated, comprehensive approach to health (Bridges & Edmonds). These efforts focus on what occurs outside the traditional health care system (Bridges & Edmonds). This approach recognizes the importance of decisions made by individuals and families, as well as the importance of factors found in communities, schools, business practices and other realms of everyday living (Bridges & Edmonds). Building what RWJF terms a Culture of Health

requires broad collaborative actions, including “a clear public covenant among individuals, families and communities to spearhead sustainable change with partners across sectors” (Bridges & Edmonds).

II. Adding Arts & Culture to the Transformation Process

To begin a long-term transformation process that would create more health-protective policies, and to increase access to live, learn and work opportunities for Smoketown residents, the neighborhood’s largest (and one of the nation’s most dangerous) public housing projects, Sheppard Square, was demolished in 2011. This began redevelopment to an energy-efficient, mixed-income residential area, using a \$100+ million public-private investment.

In 2013, the desire to support better policy making and increase opportunities for Smoketown residents to learn and work led to a new effort in Smoketown called the ***Creative Innovation Zone (The Zone)***, a civic innovation partnership between IDEAS xLab (IDEAS) and YouthBuild Louisville (YBL). The Zone was unique in that it added arts and culture strategies to the traditional core components of community development in order to increase civic engagement, expand educational opportunity and attract new resources to support economic growth in Smoketown.

IDEAS designs creative approaches to improve health with a singular philosophy: Health is culturally created. Through social innovation, IDEAS strives to transform how people and organizations use the creative process. Through a development model that offers a unique artist-training program, IDEAS enters into partnerships with universities, health sector professionals and community development organizations, such as YBL, to connect arts and humanities-based programming to population health.

YouthBuild Louisville (YBL), committed to rebuilding lives, has emerged as a cornerstone in the Smoketown transformation. YBL is a full-time education, leadership and job-training program for young adults between the ages of 16-24 who have dropped out of high school and are underemployed. The program helps these young people earn their high school diploma or GED while getting hands-on

training and work experience in the Construction Trades, Urban Conservation Corps, Professional Medical Careers or Culinary Field. Many of the students have struggled with obstacles that hinder their path to success – including poverty, violence, abuse, drugs, fear, and lack of family and social support. YBL offers hope and a second chance to overcome such impediments. Throughout the program young people become part of a team and build lasting relationships with fellow students and YBL staff, who are committed to helping them reach their goals in the classroom, on the jobsite, and in life.

Since early 2014 the Creative Innovation Zone (The Zone), has produced over 35 new pre-apprentice jobs for young adults at YBL and brought together artists-as-civic-innovators with neighborhood organizations to increase non-resident volunteers in Smoketown from 350 (2013) to more than 1,500 (2016).

Another example of how adding arts and cultural strategies to traditional community development has resulted in envisioning a new, sustainable vision for Smoketown's future includes IDEAS xLab's community-based artist residency program. This program connected more than 30 different artists with the neighborhood, and led to a variety of projects including:

- Creation of a commercial flower farm;
- Motorcycle mechanics training program for a group of intergenerational women;
- Smoketown Arts Festival;
- Documentary film on the neighborhood's ongoing transformation;
- Collaboration with artists from China as part of the Yale-China Association's artist fellowship program;
- Workshop by the Dance Theatre of Harlem that encouraged young people to engage in the arts;
- Formation of Roots & Wings, a Black performance group that uses cultural approaches to address violence and structural racism;
- Formation of a community arts organization that worked to convert a former liquor store into a small community arts center with a mission to facilitate passion-driven learning experiences whereby youth can explore the arts through creative play and production;

- Formation of Urban Green, now in its fourth year, a partnership with the Potager du Roi at Versailles Palace in France whereby young adults attending YBL travel each year for agriculture and arts apprenticeships to learn techniques in environmental design and urban farming. A team from France now travels to and coordinates co-design of ongoing landscape projects at YouthBuild to inspire residents within the neighborhood;
- Formation of a culinary job opportunities program, created in partnership with world-renowned Chef Edward Lee.

As IDEAS xLab and YouthBuild Louisville developed the Creative Innovation Zone model in Smoketown, IDEAS was simultaneously working on placing artists inside health industry corporations including General Electric, XLerateHealth and Humana. Through this work in the health sector, the IDEAS team began working with the Robert Wood Johnson Foundation's County Health Model on a Humana project in Natchez, MS. This led to viewing the work of Creative Innovation Zone through a lens of health and health policy.

In the fall of 2015, after a series of community meetings with an expanded group of partners, including the University of Louisville (U of L) School of Public Health & Information Sciences, Louisville Metro Department of Public Health & Wellness and a myriad of hospitals and physician services located in the U of L health sciences campuses directly adjacent to Smoketown, IDEAS xLab and YouthBuild Louisville began working together with other community institutions to pivot Creative Innovation Zone into becoming Project HEAL (Health. Equity. Art. Learning).

III. The Pivot to Project HEAL

Culture shapes health

Project HEAL is a cultural blueprint for creative, just, healthy communities and a model that could potentially be replicated across America. Project HEAL may activate the untapped potential of a community's arts and culture assets to become the catalyst for increasing government access and driving more equitable

policymaking, in order to positively impact health and wellbeing at a population-level. Project HEAL is designed to help communities maximize the positive health benefits stemming from equitable development policies, encompassing both public and private efforts, that strengthen economic, physical, and social health. Moving from the current prototype to an expanded pilot phase is an important step toward more fully evaluating these goals.

America leads the world in medical research and medical care, and for all we spend on health care, we should be the healthiest people on Earth. Yet for some of the most important indicators, like how long we live, we're not even in the top 25, and instead lag behind countries like Bosnia and Jordan (Geoba.se, 2017).

It's time for America to lead again on health, and that means taking three steps. The first is to ensure that everyone can afford to see a doctor when they're sick. The second is to make preventive care, like screening for cancer and heart disease, available to people who won't or can't avail themselves of such care and services. The third is to stop thinking of health as something we get at the doctor's office, but instead as something that starts in our families, in our schools and workplaces, in our playgrounds and parks, and in the air we breathe and the water we drink. In other words, health begins, among other factors, with where and how we live, learn, and work. The more the problem of health is seen this way, the more opportunities are available to improve it. Scientists have found that the conditions in which we live, learn and work have an enormous impact on our health, long before we ever see a doctor. It's time we expand the way we think about health to include how to keep and nurture it, not just how to get it back. (Robert Wood Johnson Foundation [RWJF], 2010)

Health is not just about health care. RWJF has been an effective, evidence-based champion for increasing our understanding of how the social determinants of health (SDOH) - essential human needs like education, community safety, family and social support, economic security - are directly related to the health of communities. Philanthropy is beginning to embrace new models for shaping health protective policy, in which equity, social justice and evolved forms of community organizing and impact financing play central and intentional roles.

Artists shape culture

Project HEAL's arts-based approach is rooted in research showing that strong social connections and community engagement improve health (Seppala, 2014). IDEAS has combined this knowledge with a growing body of evidence describing how integrating arts and culture into public spaces can boost health (Hagan, 2016).

Arts and culture offer positive health impacts at the individual level. Evidence shows the basic biometric benefits, such as reduced cortisol levels which decrease stress, experienced by individuals engaged in art and music therapy. Recent years have also seen a deeper appreciation and understanding of the intentional role that arts and culture can play in community development. This is largely understood in the context of national creative placemaking programs championed by organizations such as the National Endowment for the Arts (NEA) and ArtPlace America.

Further evidence shows that the diffusion of healthy behaviors and attitudes occurs via social networks more reliably than through geographic proximity (Art Works, 2011). Research on the impact of the arts on individual and community health must therefore begin with investigating art's capacity to mobilize small, well-defined groups of people. These people will eventually change social norms in their communities about behaviors, attitudes, and political involvement (Art Works, 2011). The health and happiness of an individual or small group can influence those around them (Art Works, 2011). Thus, meeting the needs of targeted groups not only will improve their health but also the health of others (Art Works, 2011). There is the possibility that arts interventions may prove even more effective than traditional interventions (Art Works, 2011).

Communities shape change

What is needed is a replicable, population-level intervention that synthesizes individual biometric approaches and community level development into one model, while simultaneously activating all levels of the social ecological model - from individual to society at large. Project HEAL can potentially fill this gap. Increasing civic engagement and building community capacity for self-advocacy, in order to

create more equitable policymaking, is how Project HEAL creates long-term, sustainable change.

Project HEAL is designed to help communities maximize the positive health benefits stemming from equitable development policies, which encompass both public and private efforts, to strengthen economic, physical, and social health.

Project HEAL does this by using arts and culture to drive participation, by a diverse group of community members, in the policy making process. Science tells us that increasing civic engagement toward better policy is the most efficient way to create large-scale improvement in community health. IDEAS xLab believes that arts and culture provide powerful means for increasing a community's influence on the policies that affect them.

Opportunities for better health begin where people live, learn and work. Every day, policymakers in sectors such as community development, education and labor make choices that could, if community health were considered during the decision-making process, significantly reduce our nation's health care costs and remove barriers that keep people from reaching their full health potential.

Tools and approaches for bringing a “health lens” to decision-making are rapidly emerging. One example is the health impact assessment (HIA), a structured process that uses scientific data, professional expertise, and input from stakeholders—including decision-makers and community members—to identify and evaluate the public health impacts (both positive and negative) of proposals and to suggest actions that minimize adverse health impacts and optimize beneficial ones.

IDEAS xLab has adapted HIA principles into the Project HEAL model. The result is an artist-activated, social-lab process that uses various types of humanities-based approaches, artistic expression, media, and other strategies to (1) explore both symptoms and root causes of local health challenges, (2) identify leverage points, and (3) create actionable policy strategies and sustainable community development strategies that can positively impact wellbeing and health equity.

IV. Current Conditions in Smoketown

Smoketown is a historically Black Louisville neighborhood where residents live, on average, nine years less than residents of the city's other neighborhoods (Louisville Kentucky, 2016). Furthermore, Smoketown residents have higher rates of drug and alcohol use, diabetes, heart disease, HIV-AIDS and death from homicide. Of the 231 deaths from diabetes in Louisville in 2015, 19 of the deaths were in Smoketown (National Center for Health Statistics & Centers for Disease Control and Prevention [CDC], 2015). With regard to homicides, of the 93 homicides in Louisville in 2015, 13 occurred in Smoketown (defined in this instance as the 40202, 40203, and 40204 zip codes) alone (National Center for Health Statistics & CDC, 2015). Smoketown itself is comprised of portions of the 40202, 40203 and 40204 zip codes.

Transportation options are limited. There is one West to East bus route running along the northern boundary of Smoketown on East Broadway. There are only three bus routes (Bus 18, 19, 43) running through the borders of the Smoketown neighborhood. There are scant choices for buying healthy food in the neighborhood. There are no grocery stores in Smoketown. Within 0.5 miles of the southern boundary of Smoketown are two convenience food stores, but in general, these types of stores do not carry healthy food options. The nearest grocery stores are a Kroger, located 1.2 miles from the southern boundary of Smoketown and a Save-a-Lot located just over 1 mile from the southern border of Smoketown. While the existing grocery stores are generally accessible by public transportation, their inconvenient access via public buses prevents them from being a viable shopping option for most residents.

Stemming from "institutional policies that have widened the gap between rich and poor, Black and White" (Louisville Kentucky, 2016), Smoketown experiences generational, widespread poverty. The median earning for Smoketown, defined by Census Tract 62, is just under \$20,000 while the median earning for Louisville at large is just over \$30,000. The unemployment rate among those 16 years and older in the labor force in Smoketown is just over 10% whereas the unemployment rate in Louisville is between 5 and 6%.

Smoketown is geographically well-situated near health care services. In fact, the Louisville area with the highest concentration of hospitals is located just 0.3 miles north of Smoketown. While all hospitals are readily accessible by public transportation, there is the lingering perception among many in Smoketown that the health services provided at these institutions are not meant for them, as evidenced by the Vision Smoketown Report (Kentuckians for the Commonwealth, 2014).

Even if this perceived barrier were overcome, healthy citizens require much more than health care services; such needs include “having a job, a safe place to live and walk, a place to buy healthy affordable food, a good education, clean air to breathe and a strong social network” (Louisville Kentucky, 2016). A person’s neighborhood, school or job should not be hazardous to their health.

Geographic Boundaries of Smoketown

Table 1: Smoketown is defined as Census Tract 62 (referenced in figures below) is the area in pink labeled "Smoketown" on the map.

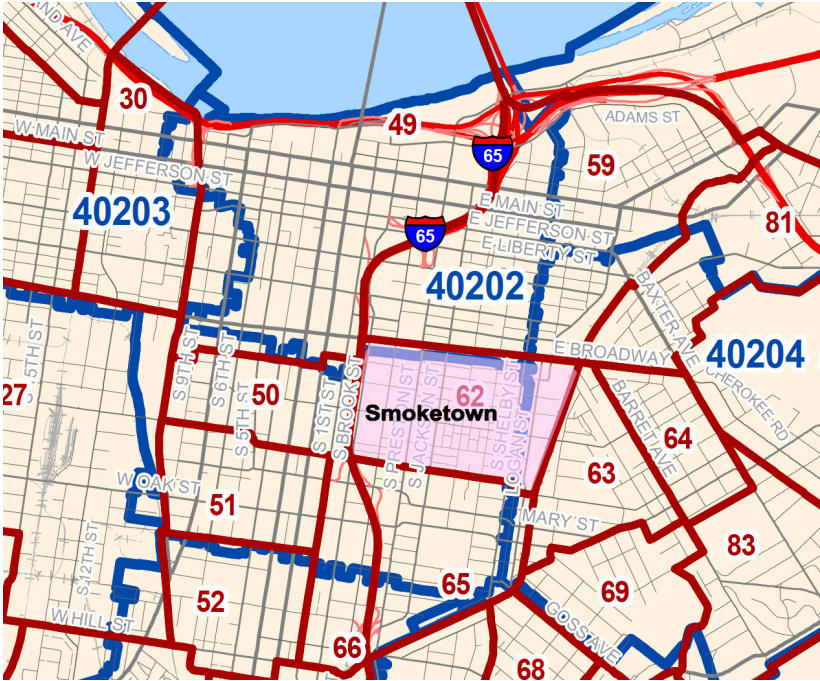
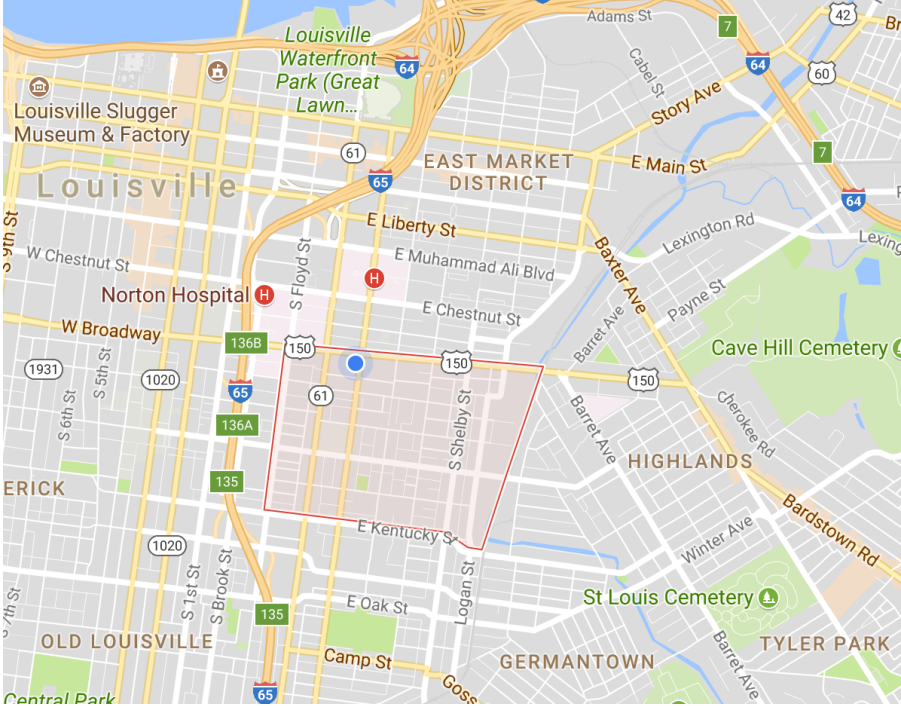


Table 2: Neighborhood Description (corresponds to *Focus on Poverty* appendix table A2), 2009 - 2014

	Smoketown	Louisville
Population	1,837	743,000
Multidimensional Poverty Index	---1.54 (15 th of 190 tracts)	0
Low Income	78%	26%
Low Income Children	93%	35%
Median Earnings	\$18,500	\$31,600
No High School Degree	14%	9.8%
Bachelor's Degree	14%	32.1%
Unemployed	24.1%	9.8%
Uninsured	22.9%	12.2%

<http://greaterlouisvilleproject.com/annual-city-reports/>

The Centers for Disease Control and Prevention (CDC) recently released census tract level estimates of data from the Behavioral Risk Factor Surveillance System. There are 28 total indicators across three categories: health outcomes, prevention and unhealthy behaviors. The tables below compare Smoketown to Louisville overall, and provide Smoketown's ranking compared to other census tracts in Louisville. All indicators are percent of the population, and rankings range from 1 to 182.

Table 3: Health Outcomes – higher rankings indicate worse health outcomes. Smoketown is defined as Census Tract 62. Source: Centers for Disease Control and Prevention (CDC)

Table 3: Health Outcomes – higher rankings indicate worse health outcomes

	Louisville	Smoketown	Rank
Arthritis among adults aged >=18 Years	30.8	31.9	79
High blood pressure among adults aged >=18 Years	36.3	45.9	26
Cancer (excluding skin cancer) among adults aged >=18 Years	6.7	4.1	175
Current asthma among adults aged >=18 Years	11.7	16.6	5
Coronary heart disease among adults aged >=18 Years	7.9	8.3	76
Chronic obstructive pulmonary disease among adults aged >=18 Years	9.9	14.2	19
Diagnosed diabetes among adults aged >=18 Years	11.9	17.7	25
High cholesterol among adults aged >=18 Years who have been screened in the past 5 Years	39.8	38.5	135
Chronic kidney disease among adults aged >=18 Years	3.3	3.9	34
Mental health not good for >=14 days among adults aged >=18 Years	13.3	21.5	5
Physical health not good for >=14 days among adults aged >=18 Years	14.6	23.3	9
Stroke among adults aged >=18 Years	3.5	5.6	22
All teeth lost among adults aged >=65 Years	19	40.3	5

- Smoketown ranks in the top 10 tracts in Louisville for adults experiencing unhealthy days for both the mental and physical health questions. More than 1 in 5 report their health not being good for more than 14 of the past 30 days in both categories.
- Smoketown has substantially higher rates of high blood pressure, chronic obstructive pulmonary disease, diabetes, stroke, and tooth loss than the rest of Louisville.
- Smoketown has lower rates of cancer and high cholesterol than the rest of Louisville

Table 4: Prevention – higher ranks indicate more frequent preventive services (except health insurance) 2010. Smoketown is defined as Census Tract 62.

Source: Centers for Disease Control and Prevention (CDC)

	Louisville	Smoketown	Rank
Current lack of health insurance among adults aged 18-64 Years	11.9	25.4	5
Taking medicine for high blood pressure control among adults aged >=18 Years with high blood pressure	80.8	79.2	124
Visits to doctor for routine checkup within the past Year among adults aged >=18 Years	73.7	72.8	104
Cholesterol screening among adults aged >=18 Years	76.3	64.7	175
Fecal occult blood test, sigmoidoscopy, or colonoscopy among adults aged 50--75 Years	66.2	48.3	175
Older adult men aged >=65 Years who are up to date on a core set of clinical preventive services: Flu shot past Year, PPV shot ever, Colorectal cancer screening	37.5	25.7	171
Older adult women aged >=65 Years who are up to date on a core set of clinical preventive services: Flu shot past Year, PPV shot ever, Colorectal cancer screening, and Mammogram past 2 Years	37.6	21.9	179
Visits to dentist or dental clinic among adults aged >=18 Years	60.2	33.4	177
Mammography use among women aged 50-74 Years	78.6	75.1	154
Papanicolaou smear use among adult women aged 21-65 Years	79.9	69.1	171

- Smoketown is below the Louisville average on all preventative behaviors.
- For 2/3 of the preventive behaviors listed, Smoketown is in the bottom 7% of census tracts.
- Smoketown's low rates of cholesterol screenings may actually be responsible for it being below the city average in high cholesterol in the health outcomes chart.

Table 5: Unhealthy Behaviors – higher ranks indicate higher frequencies of unhealthy behaviors. Smoketown is defined as Census Tract 62. Source: Centers for Disease Control and Prevention (CDC)

Table 5: Unhealthy Behaviors – higher ranks indicate higher frequencies of unhealthy behaviors

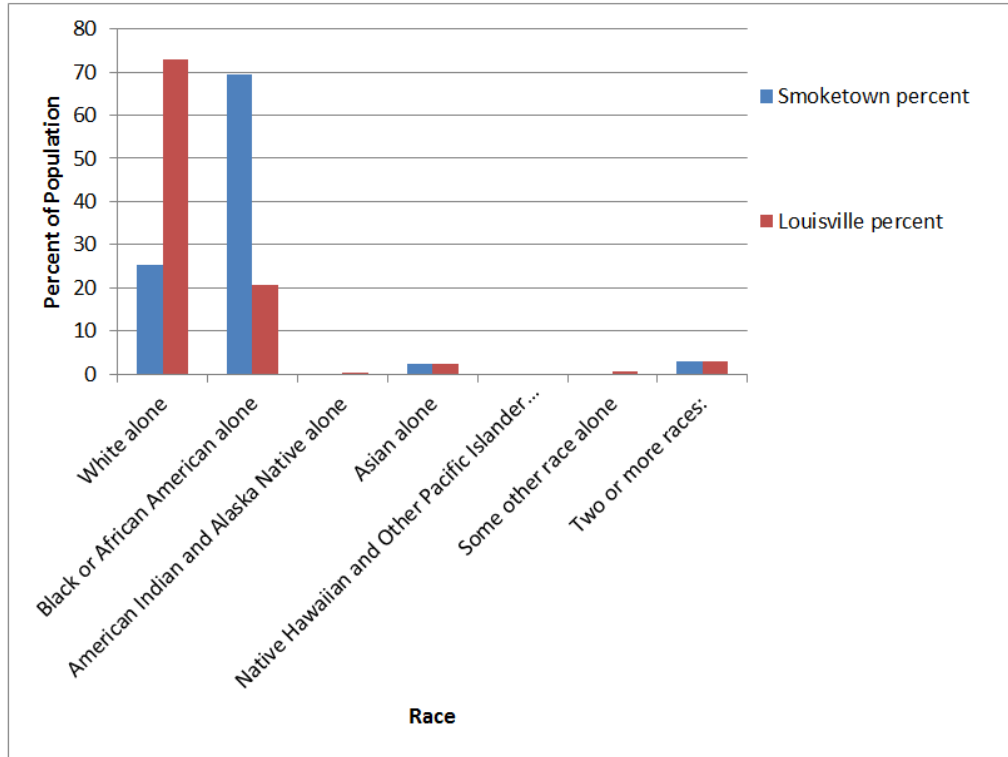
	Louisville	Smoketown	Rank
Binge drinking among adults aged >=18 Years	14.4	10.4	156
Current smoking among adults aged >=18 Years	25.5	39.5	7
No leisure-time physical activity among adults aged >=18 Years	28.1	42.7	11
Obesity among adults aged >=18 Years	26.5	49	8
Sleeping less than 7 hours among adults aged >=18 Years	37.6	49.9	9

- Smoketown is below the Louisville average for binge drinking
- Smoketown is above the Louisville average for smoking, lack of physical activity, obesity, and insufficient sleep.

The CDC expands on the measure definitions here: <https://www.cdc.gov/500cities/measure---definitions.htm> and on the small area estimation methodology here: <https://www.cdc.gov/500cities/methodology.htm>

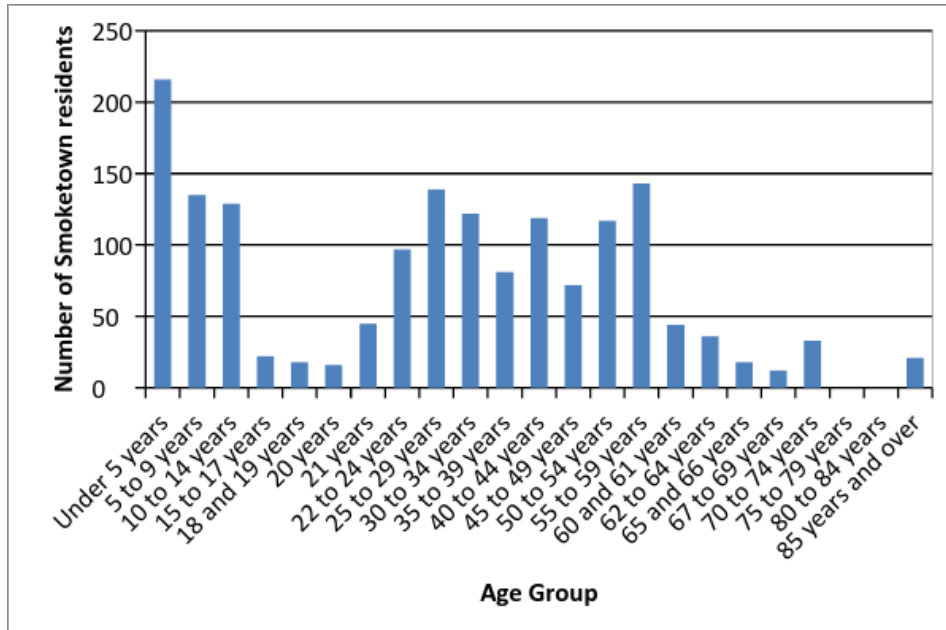
Distribution by Race of Smoketown and Louisville residents

Figure 1: Smoketown is defined as Census Tract 62. Source: 2015 American Community Survey



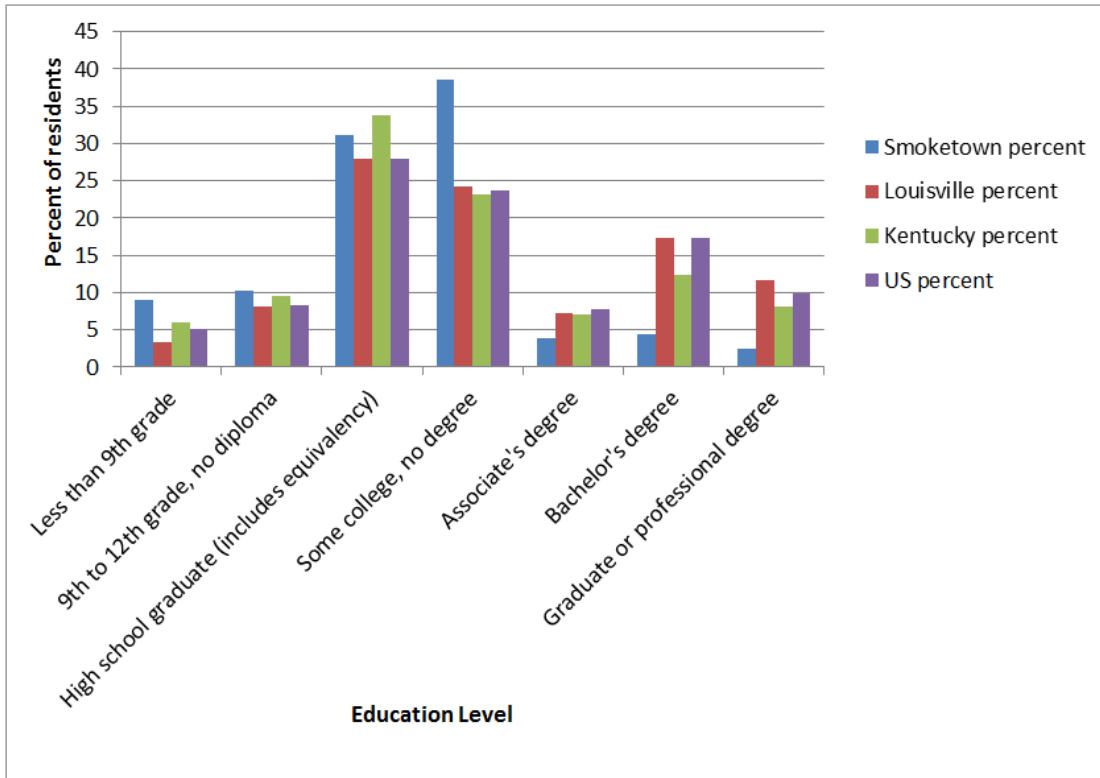
Age Distribution of Smoketown Residents in 2015

Figure 2: Smoketown is defined as Census Tract 62. Source: 2015 American Community Survey



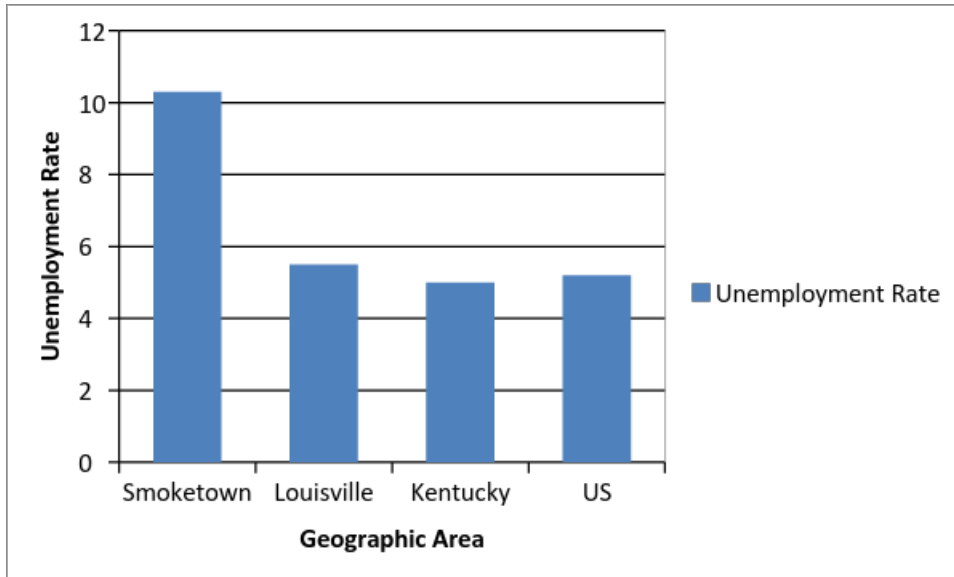
Comparison of Educational Levels in Smoketown, Louisville, Kentucky and the U.S. 2015

Figure 3: Smoketown is defined as Census Tract 62. Source: 2015 American Community Survey



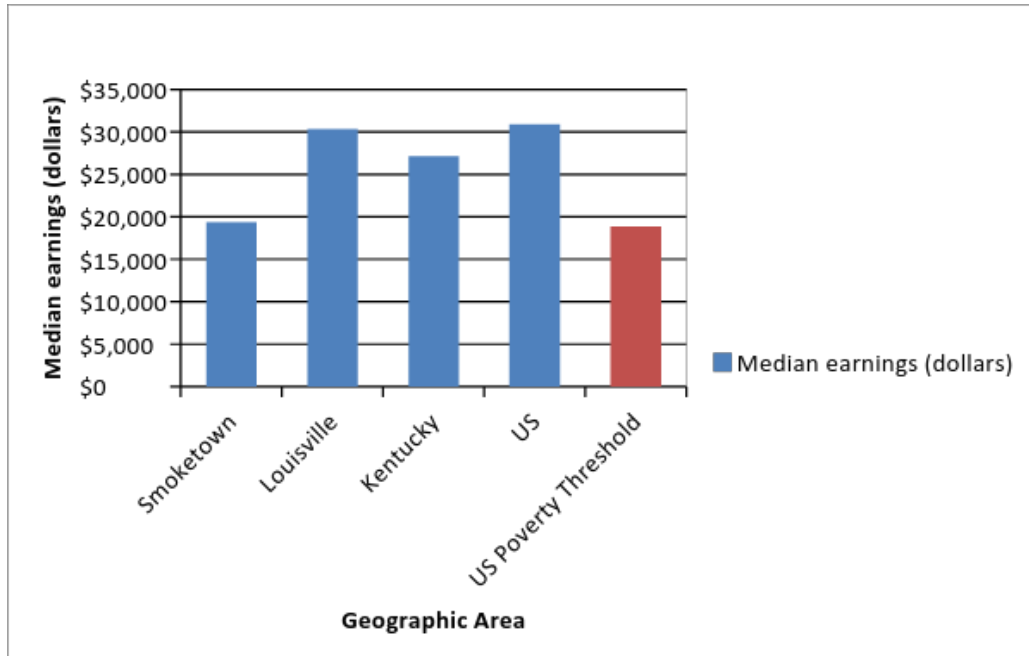
Unemployment Rate (among those 16 years and older; in labor force) in Smoketown, Louisville, Kentucky and the US in 2015

Figure 4: Smoketown is defined as Census Tract 62. Source: 2015 American Community Survey



Median earnings (dollars) in Smoketown, Louisville, Kentucky and the US in 2015

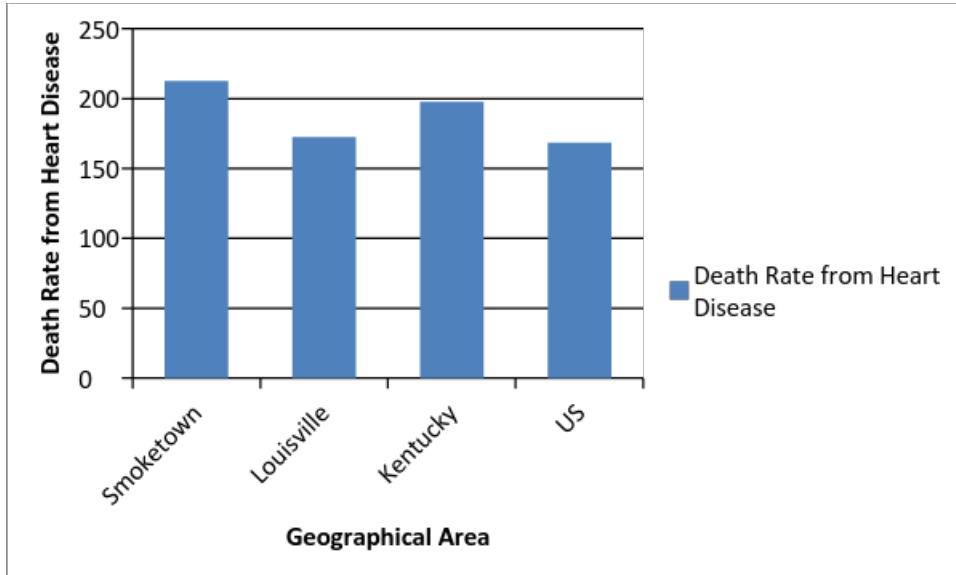
Figure 5: Smoketown is defined as Census Tract 62. Source: 2015 American Community Survey and US Census Bureau Poverty Thresholds, 2015



NOTE: US Poverty Threshold of \$18,871 based on family unit of 3 people, since the average family size for Smoketown was 3.86, for Louisville 3.09, for Kentucky 3.06, and for the US 3.24

Death Rate from Heart Disease in Smoketown, Louisville, Kentucky and the US in 2015

Figure 6. Smoketown Area Defined as zip codes 40203, 40202, 40204. Rate is age-adjusted mortality rate per 100,000 population. Source: National Center for Statistics; Centers for Disease Control and Prevention.



BACKGROUND OF THE PROJECT HEAL HEALTH IMPACT ASSESSMENT (HIA)

The Project HEAL HIA follows the accepted 6-step methodology, defined by the World Health Organization (WHO), (HIP)(1), of:

1. screening
2. scoping
3. assessment
4. recommendations
5. reporting
6. monitoring & evaluation

Screening

The objective of the screening process is to determine “whether an HIA is feasible, timely, and would add value to the decision-making process” (HIP)(2). The essential tasks of HIA screening are to decide who will be involved in screening, to determine if potential partners are ready to work on an HIA, to evaluate the project, plan, policy or program based on screening criteria, to make a decision about whether to conduct an HIA, to notify decision makers and stakeholders of the decision, and to document the screening process and outcomes (HIP)(2).

By systematically working through the Human Impact Partners Screening Worksheet (see Appendix), it was determined that an HIA is suitable for Project HEAL. Louisville Metro Department of Public Health and Wellness (LMPHW) and IDEAS xLab, as well as a number of Smoketown organizations and individuals representing the social networks (Live, Learn, Work, Worship, Play), were included in the screening process.

To inform the screening and scoping phase, IDEAS contracted artists and cultural producers and trained them in health equity principles and qualitative data collection. Arts and culture venues, such as an annual neighborhood festival called Smoketown GetDown and drumming circles in the park, were used to gain community input through interactive visual art installations. Poetry workshops were

designed to incorporate public health research tools, like PhotoVoice, in order to create community focus groups. Throughout the screening and scoping process, IDEAS xLab and its partners found ways to merge different artists' creative process with both quantitative and qualitative research methodologies. This transdisciplinary approach engaged various aspects of the community in a compelling way that had immediate benefits for the participant (i.e., stress reduction) because of the arts-based approach.

Project HEAL artists guided the community through a co-discovery process that revealed cultural assets, priorities and traditions upon which the community could build a policy initiative. The artists also facilitated the design of ongoing and newly proposed community development programs. IDEAS' culturally responsive approach is believed to have improved the likelihood of the community adopting and trusting the program solutions being offered. This is suggested by the increasing number of Project HEAL partnerships and the rise in volunteerism.

The artist-led process also served to expand community capacity for effective self-advocacy. Project HEAL participants develop a deeper understanding of how the personal (i.e., feeling loss of control) and the structural (i.e., poverty) are connected through culture and policy. IDEAS xLab's experiential learning approach relies on arts and culture events as the primary delivery tool and venue for developing a rich community scan of:

- Historical Policies
- Cultural Toxicity (Personal): Hopelessness, Fear, Shame, Uncertainty, Violence, Loss of Control
- Cultural Toxicity (Structural): Poverty, Family Dislocation, Lack of Access to Healthcare, Racism, Homophobia, Classism, Lack of Quality Educational Opportunities
- Dominant Media Narratives (news, social media, etc)
- Dominant Research Narratives

Examples of arts strategies / tools used to explore effects of historical policies that impacted (positively or negatively) the community culture include: visual learning, photovoice, poetry, film and reviews of news and social media.

Scoping

Scoping determines “which health impacts to evaluate, the methods for analysis, and the work plan for completing the assessment” (HIP)(3). The essential tasks of HIA scoping include determining the individual or team who will be conducting the HIA, engaging diverse stakeholders in setting research priorities, establishing goals for the HIA, and developing a formal HIA scope and work plan.

For the Project HEAL HIA, the Health Impact Analyst at the Louisville Metro Department of Public Health and Wellness (LMPHW) had primary responsibility for researching and structuring the HIA. IDEAS xLab contributed significantly in framing the approach, design, writing and HIA analysis.

To inform and support approach and design, IDEAS xLab again employed an arts-based approach. Project HEAL artists experimented with arts and humanities-based designs to see what solutions may work before investing significant time and talent. Project HEAL's cultural framework ignited new questions both within and across different aspects of the lived experience of a person or community. For instance, in working with community members to determine what was most important to them, IDEAS xLab asked “what is a good day?” and then used the arts and humanities tools to co-develop strategies with the community geared to creating that vision. By building an awareness of the intersections of personal and political life, communities come to understand how creating new approaches to overcoming personal struggles can have profound political implications.

During this period, arts and culture events, programs, and projects were used to engage community priorities through a lens of CULTURE (Ideas, Symbols and Spaces). These are the things that connect community members to one another in ways that are historically grounded and contemporarily relevant.

- IDEAS: Narratives that have been learned from families, peers, institutions, and media. These narratives are important because they tell us how to act in socially appropriate ways as well as to predict how others will act.

- SYMBOLS: Language, money and art are all symbols and are interconnected. Project HEAL artists work with communities to explore: (1) What are the important symbols of a community? (2) What is the meaning that people have agreed upon in the symbol's use? (3) What would be the impact if those meanings/agreements changed? (4) How can change happen?

- SPACES: Project HEAL explores the physical (churches, community centers, neighborhoods, etc.) or virtual (Facebook, Twitter, etc) spaces in which we gather, and then surfaces the “ground rules” for this space lending itself to inclusivity or exclusivity. Artists help communities understand the deep narratives about a particular space, cultural significance of space and how that influences ownership, history, voice and belonging. Artists help to surface the emotional or psychological significance we assign to narratives, and the benefit or harm that assignment causes. The goal is to use arts approaches to get communities thinking about how they can change the "ground rules" in ways that improve wellbeing.

The research priorities for the HIA arose from IDEAS' arts and culture approach to interviewing, conducting surveys and gaining qualitative data within the Smoketown community. From these arts engagements, the need for a neighborhood laundry (hence, the vision of the Smoketown Laundry & Neighborhood Wealth Incubator) was identified. The unique surveying methodology also led to Smoketown residents' vocalization of their desire to “beautify” their neighborhood. When probing deeper into what was meant by this, the Project HEAL artists learned that Smoketown residents were impacted by the negative messaging all too common on billboards, posters and other outdoor advertisements in their neighborhood. Thus, the One Poem at a Time project developed. Additionally, a recent project initiated by YouthBuild Louisville (YBL) to

build new parks and plant new trees to improve the environmental quality in Smoketown, raised residents' awareness of environmental justice.

To bring this process into an actionable framework with goals that were specific, measurable, relevant and time-bound, the Project HEAL artists and cultural producers engaged the community in creating a transformation framework. The priorities discovered were validated and tested for accuracy with community members through cultural performances and gatherings.

Project HEAL used arts and culture approaches to reframe health challenges as opportunities for growth (economic, environmental, social) based on community assets, while also setting collaborative goals and using the arts as a tool for engaging researchers and political leaders in co-development with the community.

Smoketown residents, then, played a key role in setting research priorities for this HIA.

From the Scoping Diagram (see Appendix), we decided to focus on 5 social determinants of health (SDOH) that Project HEAL is likely to affect. They are:

1. Social Isolation, Social Cohesion
2. Civic Engagement in Policy Making
3. Educational Achievement Opportunity
4. Economic Wellbeing
5. Physical Environment

The LMPHW Health Impact Analyst decided that a literature review, to explore the effects of arts interventions on each of the five SDOH listed above, would be the best research method for performing this HIA.

Assessment

The objective of the assessment phase of an HIA is to profile existing conditions and to evaluate the potential health impacts of a proposed policy, plan, program or project. This assessment considers the possible health impacts of three components of Project HEAL, namely the One Poem at a Time project, the Hero+Shero Journey Project, and the Smoketown Laundry & Neighborhood

Wealth Incubator. In considering each of these components of Project HEAL, this HIA explores how people *live* (encompassed by One Poem at a Time), how people *learn* (exemplified by the Hero+Shero Journey project) and how people *work* (manifested by the Smoketown Laundry & Neighborhood Wealth Incubator) affect the five social determinants of health identified above. The three parts of Project HEAL addressed by this HIA are described in further detail below.

A. One Poem at A Time

One Project HEAL initiative in Smoketown is One Poem at A Time - the move to replace negative outdoor messaging on billboards, posters, etc. with poetry and other positive messaging. It seeks “to implement a policy that restricts predatory advertising in communities that are in the process of reviving and rebuilding” according to IDEAS xLab. IDEAS xLab goes on to state that “the images we see every day impact our health, our beliefs and how we see ourselves.” The Smoketown community expressed a desire for “beautification” of their neighborhood. IDEAS xLab teased out what “beautification” meant to Smoketown residents, and discovered it involved the removal of outdoor signs and advertisements that reinforce negative perceptions of the community. “The power is in the people,” says Hannah Drake, a poet and lead artist for Project HEAL. “But sometimes you have to show people they have the power to change anything they want to.”

B. The Hero+Shero Journey Project

Another component of the Smoketown pilot of Project HEAL is the Hero+Shero Journey Project. It is a program that creates an arts / humanities-inspired, replicable curriculum for middle school students that gives them voice in promoting policies fostering a Culture of Health. Ultimately, the Hero+Shero Journey Project may demonstrate the potential for turning middle schools across the US into cultural hubs for civic innovation in health policy related to environmental justice.

The goal of the Hero+Shero Journey Project in Smoketown is to use art expression with community youth to establish and advance youth-driven community leadership in environmental health. The Hero+Shero Journey Project will offer free in school / out of school arts programming for the 1,100 6th-8th graders who attend Meyzeek Middle school in Smoketown, and their families.

Through evidence-based arts and culture programming, that combines data science with experiential arts learning, students will co-create projects with neighborhood leaders that impact environmental factors and social determinants of health. The students will also be bolstering, within the Smoketown neighborhood, the five social determinants of health that are the focus of this HIA: social connection, civic engagement, education, economic wellbeing and physical environment.

C. The Smoketown Laundry & Neighborhood Wealth Incubator

IDEAS xLab and its partners engaged with and surveyed members of the Smoketown community and used recent community surveys such as Kentuckians for the Commonwealth's Vision Smoketown Report and New Directions Housing Corporation's Quality of Life Action Plan. Together, these reports represent direct input from over 20% of residents in the Smoketown community. Residents identified the need for a neighborhood laundromat (Quality of Life Action Plan [QLAP]). A building which formerly housed a liquor store located on the corner of East Breckenridge and Hancock Streets was chosen as the site for the laundry. The building and what will soon be its fixtures (such as laundry machines, etc) are owned by YouthBuild Louisville (YBL). YBL will rent the space and the equipment to a local community resident, who will then own and operate the laundry. YBL will also receive rent for one business incubator program space, which most likely will be operated by Bates Community Development Corporation (BCDC). YBL will also receive rent from health worker program space operated by a local health system, still to be determined. Additionally, YBL will operate two section eight apartments above the laundry for YBL participants who are homeless (these residents will also receive job skills training at YBL). The hope is that the laundry will serve as a community center. The value of having a community hub, which creates a sense of social connection for residents, is well established (Seppala, Rossomando & Doty, 2013). Currently, Smoketown does not have a dedicated community center.

The IDEAS xLab team was inspired to develop the Smoketown Laundry & Neighborhood Wealth Incubator by The Laundromat Project in Harlem, New York. That space serves as a laundromat, community hub and arts center. The Laundromat Project states its mission and vision as follows, "We amplify the

creativity that already exists within communities by using arts and culture to build community networks, solve problems, and enhance our sense of ownership in the places where we live, work, and grow. We envision a world in which artists are understood as valuable assets in every community and everyday people know the power of their own creative capacity to transform their lives, their relationships, and their surroundings” (The Laundromat Project, 2014).

Similarly, Project HEAL is based on the belief that communities have their own best solutions for wellbeing. Science tells us that increasing civic engagement toward better policy is the most efficient way to create large-scale improvement in community health. Project HEAL aims to activate the untapped potential of a community's arts and culture assets to become the catalyst for increasing government access and driving more equitable policymaking in order to positively impact health and wellbeing at population levels (IDEAS xLAB Project HEAL).

PROJECT HEAL ASSESSMENT

In the 21st century, US policy leaders in health and education have increasingly acknowledged the need for interventions to address “the whole person” (Institute of Medicine). This prompted the quest for a more integrated approach to policy development, that can affect Americans at various life stages, across generations, and in multiple learning contexts. The arts can promote this integrated approach (Institute of Medicine). For teens and young adults, engagement in the arts has proven to be a protective factor against depression, including symptoms of PTSD (Bungay & Vella-Burrows, 2013; Rollins, 2013). One study illustrated the positive effect of music on systolic blood pressure, diastolic pressure and heart rate. For people with chronic and critical illness, such as cancer, heart conditions, and Parkinson’s Disease, arts engagement improves quality of life and temporarily alleviates symptoms as the disease progresses (Loomba, Arora, Shah, Chandresekar, Molna, 2013). A literature review revealed the positive impact of the participatory arts on improving and maintaining good health in the second half of life, during the older adult years (Noice, Noice & Kramer, 2013; Fraser, Bungay & Munn-Giddings, 2014). Lifelong learning in the arts and social engagement through arts, such as storytelling, have been shown to combat diabetes and high

blood pressure in older Black and Hispanic populations (Bertera, 2014). For older adults grappling with cognitive disorders, such as Alzheimer's Disease, participation in poetry, music and visual arts (including arts appreciation and storytelling) reduced stress and increased communication, thereby improving quality of life for patient and caregiver alike (Davidson & Fedele, 2011).

Thus, an abundance of literature supports the positive health impacts of arts engagement. This HIA examines the effect of the three Project HEAL components on various combinations of five social determinants of health (social cohesion, civic engagement, education opportunity, economic wellbeing and the physical environment). It then considers the role of these social determinants of health as catalysts for improving health.

1. Impact of One Poem at a Time

i. Change in Built Environment

Black neighborhoods have more outdoor advertising space than White neighborhoods (Kwate & Lee, 2007). Furthermore, these ad spaces disproportionately market alcohol and tobacco products (Kwate & Lee, 2007). Using census data from 2000, researchers investigated two neighborhood-level determinants of ad density: income level and physical decay / vacant lots (Kwate & Lee, 2007). The investigators hypothesized that areas with higher median household income would have fewer ads, whereas areas with high total square feet of vacant lots would have more ads (Kwate & Lee, 2007). Interestingly enough, only the latter hypothesis was supported by data in this study (Kwate & Lee, 2007). Furthermore, research indicates that perceived neighborhood disorder negatively affects mental health, increasing psychological distress (Downey & Van Willigen, 2005; Steptoe & Feldman, 2001) and depressive symptoms (Latkin & Curry, 2003) among residents. Research proves that high concentrations of alcohol sales and advertising are perceived as disorder (Sampson & Raudenbush). One can then extrapolate that high ad space density may, in and of itself, be perceived as disorder and therefore act as a chronic stressor (Kwate & Lee, 2007). Also, since individuals in predominantly Black communities consider

the high volume of outdoor advertising a form of racism, concentrated ad density puts people at risk of adverse outcomes associated with targeted racism (Kwate & Lee, 2007). These negative outcomes include psychological distress, poor mental health, increased smoking and drinking, and adverse health conditions, including cardiovascular problems (Kwate & Lee, 2007).

Outdoor advertising reflects the tension between generating city revenue and promoting the aesthetic / public health goals of neighborhoods (Kwate & Lee, 2007). This holds true particularly for segregated Black neighborhoods as the geographic isolation hinders residents' ability to form political coalitions to help enact desired public policies (Massey & Denton, 1993). These neighbors are therefore without a strong voice in determining the fate of their community. A result of this is that political leaders often cut services in these neighborhoods, creating a decline in infrastructure (William & Collins, 2001). Reduced neighborhood infrastructure may lead to the physical decline of a community. Research shows that physical decline of a neighborhood, in the form of vacant lots, has a positive correlation with ad density (Kwate & Lee, 2007).

Ad spaces have been described as “litter on a stick” and destructive to community character (Kwate & Lee, 2007). Therefore, the visual disorder created by a barrage of outdoor advertisements may create inequality by marking such neighborhoods as impoverished or undesirable and by lessening assessed value by residents and business owners (Kwate & Lee, 2007).

In Smoketown, there are currently a number of billboard advertisements for services that negatively affect perception of the neighborhood both by its residents and by people traveling through (Drake, Edmonds & Mitchell, 2017). As discussed above, this is not a situation unique to Smoketown. A review of public health literature revealed that billboard advertisements are more predominant in Black neighborhoods, and the content is mostly negative. As discussed above, a high number of vacant neighborhood lots correlates with a higher incidence of billboard ads. These billboards, particularly when promoting negative messages, are a public health issue (Drake, Edmonds & Mitchell, 2017).

Public health has also explored the link between people's built environment and their physical activity level. Over the past decade, empirical investigations into this

relationship have dramatically increased (Drake, Edmonds & Mitchell, 2017). Consider how this correlation plays out in predominantly minority communities where many neighborhood residents suffer(ed) from chronic stress as a result of structural racism in historical policies - including redlining (Drake, Edmonds & Mitchell, 2017).

Structural racism placed Black neighborhoods at low priority for public resources (Drake, Edmonds & Mitchell, 2017) and in the past, fewer efforts were made to develop infrastructure, such as sidewalks, in these areas. The lack of neighborhood sidewalks discourages walking and may even render walking in the neighborhood stressful and hazardous. Having no access to this means of exercise and stress-relief could, long-term, be a contributing factor to obesity. Structural racism still exists today, and one form is in high volume negative messaging. It therefore comes as no surprise that neighborhoods with a high density of negative advertising also experience many health disparities related to obesity (Drake, Edmonds & Mitchell, 2017). This phenomenon may come to pass in neighborhoods, such as Smoketown, that previously and currently bear the burden of structural racism. Over time, the barrage of negative outdoor messaging may be a factor in such poor physical health outcomes as obesity and its associated illnesses. Thus, already marginalized communities now are also carrying the burden of high density negative advertising and its ensuing health consequences.

By replacing negative outdoor advertisements with art and other positive messages, One Poem at A Time aims to address and gradually remediate many of the ills (such as poor physical and mental health outcomes and lower property values) associated with the targeted racism created by high density negative messaging in a predominantly Black community.

ii. Change in Negative Advertising Message

The environment in which one resides has a profound effect on health, including mental wellbeing. With respect to public health interventions, such as tobacco use cessation or the reduction of obesity prevalence, interventions are more likely to

succeed when environmental cues, such as billboard advertisements, correlate to public health messages and goals (Cassady, Liaw & Soederberg Miller, 2015). For instance, one paper showed that for a 10% increase in the number of outdoor advertisements for food or beverages, there was a 1.05 greater odds of an individual in that neighborhood being overweight or obese, after controlling for income, education and race (Lesser, Zimmerman & Cohen, 2013). Outdoor advertisements for unhealthy products, including alcohol and tobacco, are more likely to be found in neighborhoods with a higher proportion of minorities and low-income individuals (Kwate & Lee, 2007; Lowery & Sloane, 2014). For outdoor food ads in particular, Latino and Asian neighborhoods had as much as six times the outdoor food advertisements as compared to the number of such ads in high income White neighborhoods (Cassady, Liaw, and Soederberg Miller, 2015; Lesser, Zimmerman & Cohen, 2013; Lowery & Sloane, 2014). Black neighborhoods had about 17 times the number of outdoor food ads compared to high income White neighborhoods (Cassady, Liaw, & Soederberg Miller, 2015; Lesser, Zimmerman & Cohen, 2013; Lowery & Sloane, 2014).

One pilot study investigating neighborhood and individual influences on nutrition information processing, food choice and obesity examined patterns of advertising related to diet and physical activity in an economically and racially diverse urban area in Northern California (Cassady, Liaw & Soederberg Miller, 2015). The goal was to unearth disparities in ad distributions by neighborhood income and race (Cassady, Liaw & Soederberg Miller, 2015). The results of this pilot study showed that 40% of advertisements were on billboards while 60% were on bus shelters or benches. The advertisements were in English predominantly (90%), while the remaining ads were in Spanish or in both Spanish and English (Cassady, Liaw & Soederberg Miller, 2015). Half of the ads were related to some aspect of physical activity or food / beverages. The other half of the ads were related to health also, focusing on mental health services, pregnancy testing, medical centers and clinics (Cassady, Liaw & Soederberg Miller, 2015). The findings were that communities at highest risk for obesity, including low-income Latino and Black neighborhoods, had the highest density of ads for unhealthy foods and beverages (Cassady, Liaw & Soederberg Miller, 2015). A limitation of this study, highlighted by the researchers, is that it does not address the lack of literature examining the causal

link between unhealthy advertising and obesity (Cassady, Liaw & Soederberg Miller, 2015).

Higher socioeconomic status is not a protective factor against negative outdoor advertising (Kwate & Lee, 2007). However, racial segregation in a neighborhood does have an effect on ad density and content (Kwate & Lee, 2007). Recall that negative outdoor advertising is more likely to be found in communities with a higher proportion of low-income, minority residents (Kwate & Lee, 2007).

Research on the health impacts of negative advertising revealed an emerging pattern of negative messaging in vulnerable areas (Drake, Edmonds & Mitchell, 2017). Using GPS devices and digital cameras, researchers surveyed outdoor advertisements in Austin, Los Angeles and Philadelphia (Drake, Edmonds & Mitchell, 2017). GIS (geographic information system) and hotspot analysis showed that unhealthy ads were clustered around child-serving institutions in Los Angeles and Philadelphia, but not in Austin (Drake, Edmonds & Mitchell, 2017). Multivariate generalized least square (GLS) regression models show that having a high percentage of Blacks in a neighborhood was a significant positive predictor of ad clustering (Drake, Edmonds & Mitchell, 2017).

These analyses highlight the importance of zoning and land use regulations to protect children from exposure to unhealthy commercial messages, particularly in neighborhoods with a large racial / ethnic minority population (Drake, Edmonds & Mitchell, 2017). By understanding the intersection of advertising with Adverse Childhood Experiences (ACEs), for example, and relating it to other factors, such as Smoketown's food desert status, the multidimensional impact of negative advertising on health becomes more apparent (Drake, Edmonds & Mitchell, 2017).

IDEAS xLab's work in Smoketown showed that negative advertising both discourages walking in the neighborhood and impacts social isolation among residents. Dr. Druh Khullar, a resident physician at Massachusetts General Hospital and Harvard Medical School wrote in the December 22, 2016 article "Loneliness is a Health Hazard, but there are Remedies" about new research revealing the ill effects of social separation. For instance, people with fewer social connections experience disrupted sleep patterns, altered immune systems, more inflammation and higher levels of stress hormones. Dr. Khullar also pointed out a

study that found isolation increases the risk of heart disease by 29% and of stroke by 32%.

In the article, Dr. Khullar also cited an analysis that pooled data from 70 studies and 3.4 million people. It revealed that socially isolated individuals' risk of dying in the next seven years was 30% higher [than more socially connected people] and this effect was predominant in middle age (Drake, Edmonds & Mitchell, 2017).

The Khullar article went on to highlight the role of loneliness in accelerating cognitive decline in older adults. Socially isolated children have significantly poorer health 20 years later, even when controlling for other factors. Loneliness, then, is as important a risk factor as obesity and smoking for early death (Drake, Edmonds & Mitchell, 2017). Khullar writes, "The evidence on social isolation is clear. What to do about it is less so." IDEAS xLab's One Poem at a Time initiative is part of an effort to find new solutions to such public health issues as social isolation.

Predatory advertising also has a significant economic impact. Racial health disparities are associated with substantial annual economic losses nationally. This includes an estimated \$35 billion in healthcare expenditures, \$10 billion in illness-related lost productivity, and nearly \$200 billion in premature deaths (Drake, Edmonds & Mitchell, 2017). Efforts to reduce health disparities could therefore have great value, both economically and socially.

Negative advertising discourages economic development of and investment in Smoketown (Drake, Edmonds & Mitchell, 2017). Furthermore, informal analysis showed that many of the advertisements pertain to organizations and businesses, such as personal injury lawyers, that are not Kentucky-based entities (Drake, Edmonds & Mitchell, 2017). Thus, the state generates little economic benefit from the advertisements, even though the harmful health effects occur locally, as does the burden of cost for care related to the negative health outcomes of the ads.

In his work, "Black Youth Rising: Activism and Radical Healing in Urban America," Dr. Shawn Ginwright suggests that in the same way lead puts environmental toxins into the environment, high density, negative messaging (such as the advertisements in Smoketown) places "social toxins" into the environment (Drake,

Edmonds & Mitchell, 2017). Research clearly establishes a link between negative outdoor messaging and poor health outcomes. As such, it would be beneficial to the already vulnerable populations residing in high ad density neighborhoods to replace the negative advertisements with positive messaging.

Other cities are using art on billboards and posters to substitute for negative advertisements. Take for example Art in Ad Places (AiAP) in New York City that will install a new work by a different artist in a public kiosk every week during 2017 (Dunne, 2017). Negative billboard advertisements outside Brooklyn artist Caroline Caldwell's apartment inspired her to "fill my life with art that would make people feel anything else [but self-conscious]" (Dunne, 2017). AiAP was thus formed by organizers Caldwell, writer RJ Rushmore, photographer Luna Park and videographer Annie Horner (Dunne, 2017). AiAP is a 52-week campaign, launched in early January 2017, that will replace advertising in public spaces with art. "We're disturbed by the way that advertising makes people feel inadequate or privileges certain types of messages and people over others," states Rushmore (Dunne, 2017). "Consuming advertising is unhealthy, and with outdoor advertising, there's no way to opt out, except to remove it." The AiAP organizers and participating artists were partly inspired by the tenets of *Global Ad Hack Manifesto*, which state:

Outdoor advertising is visual pollution

Outdoor advertising can be psychologically damaging

Outdoor advertising is pushed on viewers without their consent

Outdoor advertising marks underutilized venues for other messages.

(Dunne, 2017)

"By replacing advertisements with artwork, Art in Ad Places provides a public service and alternative vision of our public environment," says Rushmore (Dunne, 2017). With a name derived from the public art campaign Art in Odd Places, Art in Ad Places is not the first art campaign designed to eliminate outdoor ads. Organizers cite mass takeovers such as Jordan Seiler's *Public Ad Campaign* and *Brandalism* in Europe (Dunne, 2017). The primary difference is AiAP's long term

approach to improving the cityscape (Dunne, 2017). Former advertisement takeovers tended to “go for one day of shock and awe,” states Rushmore (Dunne, 2017). With Brandalism, hundreds of pieces of art are installed around a city during the night, photographs of them circulate on social media, and the art is usually removed by authorities (Dunne, 2017).

First Amendment concerns may complicate regulation and / or elimination of outdoor advertisement on billboards and posters in the Smoketown neighborhood (Loshin, 2006). In Supreme Court cases such as *Lorillard Tobacco Co. v. Reilly* (2001), the Court invalidated an ordinance banning tobacco billboards within 1000 feet of a school or playground (Loshin, 2006). The logic was that such a prohibition on commercial speech did not reasonably fit the government’s interest in discouraging youth smoking. Instead, the ordinance broadly infringed on the ability of tobacco companies to advertise legal products to adults (Loshin, 2006). Due to the Supreme Court’s rulings on such First Amendment cases, content-based sign regulation is often an ineffective way to limit sign proliferation (Loshin, 2006). It is suggested that cities control “the most visually intrusive aspects of signs” through content-neutral restrictions (such as limiting sign density, size, and location) (Loshin, 2006).

Thus, by having multiple entry points of interest for community residents, the process of replacing negative outdoor advertisements through One Poem at a Time will increase civic engagement and community organizing around health protective policies in neighborhood development decisions. The research shows that changing the density and content of the negative messaging most likely will serve as a health protective factor influencing the emotional well-being of the community as well as the community’s perceived value by outsiders.

2. Impact of Hero+Shero Journey Project

Background of the Hero+Shero Journey Project:

Hero+Shero Journeys (JOURNEYS) will explore the potential for combining the power of community with art, data science, mythology and storytelling to engage 6-8th graders, at Smoketown's Meyzeek Middle School, in co-creating projects with

neighborhood leaders that can positively impact environmental health and social determinants. The project will be led by spoken-word artist Chris Rasheed, a teacher at Meyzeek Middle School. Ultimately, the project should demonstrate the potential for turning middle schools across the US into cultural hubs for civic innovation in health policy and give youth an increasing role in policy making through the arts. The projects will focus on the 1,100 6th-8th graders who attend Smoketown's Meyzeek Middle School, and their families.

JOURNEYS will create an in class / out of class artist residency program that engages artists and their artistic practices to raise awareness around environmental health justice, and to teach science, technology, engineering and math (STEM) subjects. Students will create their own Hero+Shero journey. Through this project, they will better understand how the quality of air, water and soil impact their health and wellbeing. Furthermore, JOURNEYS will engage students to think critically about how their collective voice could be focused to advocate for policy change.

This project is influenced by the book that inspired the movie series "Star Wars." *The Hero with a Thousand Faces* (first published in 1949) is a work of comparative mythology by American mythologist Joseph Campbell. In this book, Campbell discusses his theory of the journey of the archetypal hero found in world mythologies. Campbell explores the theory that important myths from around the world, which have survived for thousands of years, all share a fundamental structure which Campbell called the *monomyth*. In a well-known quotation from the introduction to *The Hero with a Thousand Faces*, Campbell summarized the monomyth:

"A hero (a common "everyman") ventures forth from the world of common day into a region of supernatural wonder: fabulous forces are there encountered and a decisive victory is won: the hero comes back from this mysterious adventure with the power to bestow benefits on his fellow man."

The annual project will consist of 3 focused artist residencies, culminating in the creation of a Smoketown Hero+Shero comic book that the students will create with local comic / graffiti book artists and poets. The comic book advances suggested policy change initiative(s) for increasing environmental health justice in Smoketown. Students will then present the comic and suggested policy changes

to policymakers, including the Louisville Mayor and Louisville Metro Council. In a 2017 experiment that IDEAS xLab conducted with a graffiti artist and a digital marketing firm, where graffiti became a means for increasing online health literacy, the positive, culturally responsive messaging got click-through rates 80% higher than traditional health sector ad approaches. IDEAS xLab believes a similar approach with comparable effects can be done through Journeys.

JOURNEYS seeks to:

- Build new coalitions and networks to mitigate the negative health impacts of environmental racism in Smoketown.
- Advance air, water and soil quality as social justice health issues which could bring in a whole new generation of champions from communities of color
- Increase civic engagement of young people to support and shape policy change
- Provide a unique opportunity for breakthrough understandings of how to engage in local data collection and drive social demand through arts and culture
- Provide an opportunity to expand knowledge related to the impact of healthy air, water, and soil on the traditional chronic diseases such as diabetes, cancer and heart disease.
- Support Cradle to Career - a strategy by Louisville Metro Government to increase educational attainment leading to job readiness in Louisville.
- Support Louisville Metro's Office of Globalization, building and expanding upon Smoketown's already existing link to the Potager du Rois (Versaille, France) through YouthBuild Louisville / IDEAS xLab.
- Positively impact social cohesion among different networks in the Smoketown community.

The Hero+Shero Journeys Project will be taught both in school and out of school through Meyzeek's Cooperative Learning After School Program (CLASP) which focuses on: academic enrichment; anger management; positive peer relationships; family nights; academic and team building

Meyzeek Middle School is fortunate to have a Community School Program, which is designed to provide intergenerational, educational, social, cultural, and recreational activities that empower students and families to maximize their innate potential. In addition to working with community residents, the program focuses on working with community agencies and organizations to enhance the provided activities.

Currently at Meyzeek, students who come to Smoketown each day to be part of the math and science magnet school program are separated from the Smoketown-based middle-schoolers who attend Meyzeek but are not part of the magnet program. JOURNEYS will give Smoketown-based youth the opportunity to interact with one another and to build collaborative programming, both in school and out of school, with students from different neighborhoods and backgrounds who come to Smoketown to attend the magnet school. Such social connection has many positive impacts, including better educational achievement.

i. **The Hero+Shero Journey Project may facilitate enhanced EDUCATIONAL ACHIEVEMENT**

Research on the role of social connection in educational achievement:

Social connection plays a part in better academic performance, which in turn frequently leads to gainful employment, financial security and job stability. But a sense of not belonging (i.e. social isolation) negatively impacts cognitive performance (Art Works, 2011). It was shown that uncertainty about one's belongingness "undermines the motivation and achievement of students whose ethnic group is negatively stereotyped with regard to academics" (Art Works, 2011). When Black students doubted their social belongingness in an academic setting, it decreased their beliefs in their intellectual potential (Art Works, 2011). But when their doubts were mitigated, their academic performance and grades improved (Art Works, 2011). This experiment showed "a causal relationship between low connection and cognitive impairment" that perhaps explains the correlation between low social connection and poor school performance (Art Works, 2011).

These outcomes stem from social connection's role in increasing emotion regulation and cognitive ability. Thus, social connection leads people to remain calm in stressful situations and to think clearly under pressure (Art Works, 2011). Animal research shows that oxytocin (a chemical produced in the body) production is stimulated through social connection (Art Works, 2011). Oxytocin decreases stress-induced high cortisol levels and induces a calming effect on the nervous system (Art Works, 2011). It is surmised from this calming effect of oxytocin that high social connection aids in cognitive processes, such as self-evaluation and social comparison, thus leading to increased emotion regulation (Art Works, 2011). Just the *perception* of having social connection alters the cognitive interpretation of stress (Art Works, 2011). An awareness that others, even if it is just one person, will be supportive buffers the stress response by changing the appraisal of a situation previously perceived as stressful (Art Works, 2011). People with high social connection, when facing a life stressor, do not judge the situation as too stressful since they are confident they will be supported by others close to them (Art Works, 2011).

Alternatively, research on *lack* of social connection shows it may lessen cognitive ability (Art Works, 2011). In one experiment, telling participants that they would end up alone in life induced feelings of social exclusion (Art Works, 2011). Such predictions of solitariness resulted in decreased performance of subsequently executed complex cognitive tasks (Art Works, 2011). Another experiment examined the relationship between social connection, negative emotionality, and social competence (Art Works, 2011). A feeling of loneliness was induced hypnotically. Following the induction, participants reported lower positive mood and greater fear of negative evaluation by others (Art Works, 2011). The experiment participants also reported having lower social skills, confirming that low social connection results in lower social competence (Art Works, 2011).

Creativity can be taught: Neuroscience research shows a strong correlation between arts learning and improved cognitive development, as previously discussed (Institute of Medicine). The arts often are associated with a strong sense of creativity. Many shy away from arts learning or participation due to the belief that they are not creative enough. But as experimental psychologist James Kaufman has stated, "creativity can be taught" (Institute of Medicine). Research in

cognitive neuroscience has advanced understanding of the role of arts education in cultivating creativity (Institute of Medicine). Using functional magnetic resonance imaging (fMRI) researchers studied the brains of participants while playing both rehearsed and improvised melodies on a fiber-optic keyboard (Institute of Medicine). It was shown that during improvisation, highly trained music majors were able to use their brains in a manner non-musicians could not. The music majors could block all distractions, allowing them to better concentrate and create music spontaneously. Thus, this study illustrated a strong correlation between music training and improvisational ability, confirming that creativity can indeed be taught.

Research based on the arts in school settings: Consider the research done on the arts of acting, music skills and dancing. Based on 80 research reports, a link was found between acting out drama texts and a variety of verbal skills such as oral understanding, recall of stories, reading readiness, reading achievement, oral language and writing (Institute of Medicine). The causal link was especially strong for acting and written understanding / recall of stories (Institute of Medicine). Nineteen research reports established a relationship between learning to make music and acquiring spatial-temporal reasoning skill (Institute of Medicine). The correlation applied particularly when students learned standard music notation (Institute of Medicine). Twenty-six reports suggest a causal relationship between listening to music and temporary improvement in spatial-temporal reasoning (Institute of Medicine). Three research reports show a relationship between dance and better visual-spatial skills (Institute of Medicine).

In the Pittsburgh public schools, an attempt to integrate visual arts into the grades six through eight curriculum was followed and assessed (Institute of Medicine). The program, called the Greater Arts Integration Initiative (GAIN), resulted in improved student behavior as measured by lower numbers of discipline referrals and suspensions (Institute of Medicine). School attendance also increased among students involved in the GAIN program (Institute of Medicine). There was a notable increase in academic performance – among 7th grade students in GAIN schools, their results on the Pennsylvania State Standard Assessment (PSSA) in Reading and Math outperformed the control group (Institute of Medicine). About 23.6% and 20.8% of GAIN students achieved proficiency level or above on the

reading and math sections, respectively (Institute of Medicine). This was in comparison to 11.8% of control group students achieving proficiency level or above for each section (Institute of Medicine).

Furthermore, longitudinal data analyses revealed positive academic and social outcomes for at-risk teenagers who received arts education (Institute of Medicine). Some studies showed a positive correlation between the arts and school readiness, academic achievement, and lower risks of juvenile delinquency (Institute of Medicine). One longitudinal study followed 25,000 high school students for four years and showed a connection between high involvement in the arts and general academic success (Institute of Medicine). The study analyzed ten further years of data for the student cohort (Institute of Medicine). The finding was a continued strong connection between arts learning during childhood years and academic success and other prosocial outcomes in later life (Institute of Medicine). Academic performance of arts-involved students compared to other students improved even more with time (Institute of Medicine). Low-income students involved in the arts, when compared to their peers not engaged in the arts, were more likely to have attended and done well in college, to be gainfully employed, to volunteer in their communities and to participate in the political process by voting (Institute of Medicine).

Research based on arts engagement in after-school programs: Arts education programs for youth in out of school settings are also shown to yield benefits. One decade-long study examined 124 youth-based arts organizations across the US (Institute of Medicine). Researchers found that the learning environments of arts organizations differed from community service or sports organizations' learning environments (Institute of Medicine). Students in after-school arts programs showed greater proficiency in complex language than could have been achieved in English or Social Studies classrooms alone (Institute of Medicine). The researchers arrived at this conclusion through a comparison of language used in theater groups to language available in published classroom materials (Institute of Medicine). Furthermore, students involved in at least nine hours per week of arts education were four times more likely than their peers nationally to have gained school-wide recognition for their academic prowess (Institute of Medicine). These students engaged in after-school arts activities were

also three times more likely to have won an award for school attendance (Institute of Medicine).

Another study compared the experiences of 165 junior high students at eight after-school programs offering different activities (Institute of Medicine). There was high engagement among students participating in arts enrichment activities such as music, visual arts, drama and dance (Institute of Medicine). That is, the students participating in the arts reported markedly higher intrinsic motivation, concentrated effort and engagement, along with lower apathy, while engaged in the arts as compared to involvement in other activities (Institute of Medicine). Researchers concluded that these positive outcomes from youth-based arts enrichment activities merited further investigation into the arts (Institute of Medicine).

The arts lead to enhanced cognition that then yields better academic performance:

The crux of the matter for the researchers was to answer the question, 'How does involvement with the arts result in higher academic performance? It is purported to be the result of enhanced cognition (Institute of Medicine). Erik Erikson defines three major stages of child development – early childhood, middle childhood and adolescence (Erikson, Erikson & Kivnick, 1986). Of these three major stages, early childhood, usually defined as birth to age eight, is increasingly being recognized as a time of laying the foundation for lifelong health, learning and wellbeing (Seppala, Rossomando & Doty, 2013). Early childhood not only is a time of great physical, cognitive and social-emotional development, but also influences school readiness and later achievement and success in life (Gazzaniga, 2011).

The arts can have a positive impact on human brain development. The growth of the human brain in early childhood is remarkable – by age three, a child's brain is 90% of its adult size (Administration on Aging, 2010). Young children reach developmental milestones including emotional regulation and attachment, language development, and motor skills (Child Welfare Information Gateway). A young child experiencing negative risk factors such as environmental stressors can have significantly delayed milestones (Institute of Medicine). This may adversely affect both the child's growth and development (Institute of Medicine).

The arts have always been considered an important component of early childhood programs (Institute of Medicine). Friedrich Froebel, the man who developed the kindergarten concept, believed that young children should be involved both by participating through making their own art and by observing through enjoying the art of others. Froebel found that active and passive arts engagement encouraged each child's "full, all-round development" (White, 1907).

While most present-day scholars and practitioners agree that arts education supports development of the "whole child," others argue that it contributes to developing specific skill sets and behavior (Catterall, 2003; Chapman, 2004). A growing body of evidence shows that the arts prime or stimulate "specific cognitive skills" (Rauscher et al, 1997). For example, music lessons seem to stimulate and develop specific spatial-temporal skills (Schellenberg, 2001). Other research indicates that the arts may promote a child's school readiness (Hetland, 2000).

Dr. Michael Gazzaniga, a nationally renowned cognitive neuroscientist stated that exercise of the brain's attentional network through art can explain the resulting enhanced cognition (Institute of Medicine). According to Dr. Gazzaniga, we know that the brain has a system of neuropathways dedicated for attention. We know that training these attention networks improves general measures of intelligence. We can be fairly sure that focusing our attention on learning and performing an art, if we practice frequently and are truly engaged, activates these same attentional networks. We, therefore, would expect focused training in the arts to improve cognition generally (Gazzaniga, 2011; Halfon, 2009).

But how the arts enhance cognition is not precisely understood. The arts promote creative thinking (Institute of Medicine), which in turn may lead to success in life. But research into the neurological substrates of creative thinking is needed – what supports highly creative brain functioning? How can environmental influences such as arts engagement shape the creative functioning of the brain? (Institute of Medicine) In answering these questions, academics and practitioners will be better equipped to know how best to integrate the arts effectively into early education programs and lifelong learning (Institute of Medicine).

There is enough evidence to suggest that the arts can improve learning among children most at risk for poor educational outcomes, improve children's cognitive

skills and boost learning in young children (Institute of Medicine). Yet more research is needed to better understand the basic pathways through which the arts may positively influence cognitive development and school readiness (Institute of Medicine). It is not known, at present, if the arts – music, visual arts, drama, etc. – are integral to these positive benefits or whether the benefits derive from other factors such as smaller class size and concentrated attention from an adult (Institute of Medicine). It is surmised that arts engagement in children promotes changes in their brains, which in turn encourage creative thinking and expression, and thus improves the quality of life. Yet precisely *how* the arts shape and alter the neurological structure and function of young children’s brains is not yet known (Institute of Medicine).

Critique of arts education studies: A gap in these arts education research studies is that most are short term studies, using small sample sizes. In addition, they use different assessment methods. In the future, experimental design will benefit from including larger and more diverse study samples and using standardized measures across different domains of children’s competence (Institute of Medicine). Also lacking are longitudinal studies that track children from school into adulthood, in order to assess how early arts interventions may contribute to outcomes in later life (Institute of Medicine). For the arts implementation component, procedures are needed to help educators integrate promising research findings into their instructional activities and programs (Institute of Medicine).

In conclusion, our "youth are moving from a role as receivers of culture to creators of culture. In a 21st-century learning environment, children increasingly must know how to deal with massive amounts of information, communicate globally, and organize more of their own learning. In today’s global economy, moreover, creativity and innovation are essential" (Institute of Medicine). Not only would engagement in the arts improve cognition and academic engagement among youth, as discussed above, but arts involvement would also promote creativity and therefore innovative thinking among these students.

Educators are recognizing more and more that it is important to develop creativity in school and that it is a key competency area across all subject areas (Institute of

Medicine). Former U.S. Secretary of Education Arne Duncan stated “the most effective way to foster creativity is through arts education” (President’s Committee on the Arts and Humanities, 2011).

Arts programming for youth (as envisioned in Project HEAL’s Hero+Shero JOURNEY Project) is feasible, then, since creativity can be taught and learned. Many arts programs, including JOURNEYS, are group endeavors that allow participants to meet and engage with others. The Hero+Shero JOURNEY Project will enhance social connectivity and therefore cognitive ability, which in turn will lead to better educational achievement.

ii. The Hero+Shero Journey Project may accelerate Youth / Civic Engagement

The arts can be a tool to increase social connection and thereby improve civic engagement. One longitudinal study of 25,000 secondary school students showed that when compared to their peers, low-income students engaged in the arts were more likely to attend and succeed in college, to obtain jobs, to be community volunteers and to participate in the voting process (Institute of Medicine). Thus the arts not only increase social connection, but also have a positive effect on civic engagement as seen through community volunteering and voting participation in later life. Furthermore, studies show that the arts play an important role in competency development among students who otherwise feel excluded or isolated (Institute of Medicine). Perhaps this stems from a reduction in these students’ sense of exclusion through the social connection gained from arts engagement. Thus, the arts programming at the Hero+Shero Journey Project will most likely increase social connection among the youth participants. This enhanced social connection may serve to accelerate the rate of youth civic engagement.

iii. The Hero+Shero Journey Project may positively impact the Physical Environment

The Hero+Shero Journey Project will use arts and culture as a platform to lift youth voices into community leadership roles related to environmental quality. JOURNEYS will enable Smoketown students to create a healthier neighborhood by building a modern urban laboratory that supports innovative, experimental arts

research projects focused on elevating a health in all policies approach to community development related to environmental justice.

The American Lung Association's 2016 "State of the Air" report ranked Louisville as the 10th most polluted city for year-round particle levels (15th last year). Compared to the 2015 report, Louisville has seen an increase in its year-round levels for particle pollution in 2012-2014 and is now tied for 10th most polluted city.

While the prototype project for Journeys focused on air quality, the program plan is to expand to include healthy air, water and soil as the core focus areas. While specific studies have not been conducted on Smoketown, there exists a national pattern showing communities of color to be disproportionately exposed to workplace and community environmental hazards. Studies have shown:

- Communities of color have higher exposure rates to air pollution than their White, non-Hispanic counterparts.
- Landfills, hazardous waste sites, and other industrial facilities are most often located in communities of color.
- Lead poisoning disproportionately affects children of color
- Climate change disproportionately affects low-income communities and communities of color.
- Water contamination plagues low-income areas and communities of color across the nation. (Bell, 2016)

A 2017 article in The Root described environmental racism:

The focus of environmental justice has been the preservation of ecologies and spaces largely uninhabited by people of color. There is grave consideration for the preservation of national parks, but not for the preservation of Black life and space.

The ideas of justice and environment refer to the surrounding conditions of living things, yet the apathy that surrounds understanding that Black people have specific environmental issues is directly informed by anti-Black racism. Black communities are disproportionately impacted by exposure to lead-based paint and proximity to landfills, dangerous waste sites and

industrial facilities. Communities of color have a higher exposure to air pollution, and water contamination is a serious issue in poor and racialized communities across the country.

Racism and the disappearance of infrastructure have been a reality for Black communities for generations. Environmental justice—a set of organizations and movements meant to combat the destruction of ecologies through federal, state and community-led initiatives meant to protect the environment—often fails to protect the people of color who live there (Khan, 2017).

A scan of youth engagement programs across the country addressing environmental health issues revealed various approaches to help mitigate the negative health impacts of environmental racism.

In Boston, a pilot project was designed by a university-school-community partnership to develop youth leadership to confront these harmful environmental exposures. Using a popular empowerment education approach, students applied peer education, research, and organization skills learned in the classroom to community-based internships. Evaluation results from pretests and post-tests, focus groups, and in-depth interviews demonstrated that students shared what they learned about young workers' rights and environmental justice with family and friends. These students (1) developed a critical analysis of environmental inequities, (2) created a citywide youth coalition based upon legal, educational, and environmental issues affecting youth, and (3) implemented campaigns to enforce child labor laws and to prevent school construction on contaminated land. This multifaceted model served as an important foundation to develop youth leaders who can influence environmental policies in a variety of communities (John Snow, Inc. [JSI], 2008).

Consider also the Youth HEALS program, an innovative science collaboration that brings together youth and adults in Roxbury, Massachusetts. The program's goal was to foster youth leadership by applying math and science to address the top environmental health needs of this at-risk community. Youth HEALS includes a

pilot after-school program to train youth peer leaders in environmental health science. JSI created environmental health curricula for the initiative. These curricula teach youth participants and their supervisors how to apply math, science, and civic skills to address the environmental health needs of Roxbury, which has some of the highest asthma hospitalization rates in the state of Massachusetts (JSI, 2008) The Youth HEALS program resulted in numerous clean air initiatives in the neighborhood and also led to a robust working relationship with the Boston Medical Center, located adjacent to the Roxbury neighborhood (JSI, 2008).

In Portland, Oregon, youth have been recruited into an initiative to integrate environmental education with community empowerment. From this effort came the realization that in order to be effective, environmental education must be integrated within communities (i.e. geographically defined communities, communities of color, low-income communities) and within community-based organizations. This can be achieved by (1) building the capacity of youth and community development organizations to create and deliver their own environmental education programs, and by (2) building strong partnerships between environmental education providers and community organizations. Both approaches place environmental education providers in a supportive role, with many of the lead roles in program design and delivery filled by community members (JSI, 2008) These models create ongoing relationships with self-determining communities.

With the success of approaches such as these in similar communities, it is reasonable to anticipate that a comparable approach in Smoketown - involving youth groups combined with support from science and data entities such as the American Lung Association and other environmental justice groups - will result in new initiatives. Such outcomes could have the power to positively impact environmental quality, the physical environment, and ultimately, environmental racism in Smoketown.

3. Potential Positive Impacts of the Smoketown Laundry & Neighborhood Wealth Incubator

I. The Smoketown Laundry & Neighborhood Wealth Incubator will serve as a community space and may accelerate improvements in Social Connection, Cognition and Civic Engagement among Adults

i. SOCIAL COHESION

The Smoketown Laundry & Neighborhood Wealth Incubator will serve as a community space for neighborhood residents. Having a local place to gather will most likely serve to increase social cohesion in Smoketown.

Social cohesion is built around three key values: social inclusion, social capital and social mobility. Social inclusion refers to the degree to which all citizens can participate on equal footing in the economic, social and political life, including whether people are protected in times of need. Social capital refers to trust between people and in institutions and the sense of belonging to a society. Social mobility refers to equality of the opportunity to get ahead (United Nations Department of Economic and Social Affairs, 2012).

Project HEAL's integrated design to increasing social cohesion incorporates specific strategies for all three key values (social inclusion, social capital and social mobility). Because of this, the Smoketown Laundry & Neighborhood Wealth Incubator is likely to provide innovative insights that go beyond traditional understanding of the impact of the arts.

Research from Princeton's Center for Arts and Cultural Policy, states that community arts programs build social capital by boosting individuals' ability and motivation to be civically engaged, as well as building organizational capacity for effective action. This is specifically accomplished by:

- Creating a venue that draws people together who would otherwise not be engaged in constructive social activity.
- Fostering trust between participants and thereby increasing their generalized trust of others

- Providing an experience of collective efficacy and civic engagement, which spurs participants to further collective action
- Arts events may be a source of pride for residents (participants and non-participants alike) in their community, increasing their sense of connection to that community.
- Providing an experience for participants to learn technical and interpersonal skills important for collective organizing
- Increasing the scope of individuals' social networks.
- Providing an experience for the organizations involved to enhance their capacities. Much of this comes when organizations establish ties and learn how to work, consult and coordinate with other organizations and government bodies in order to accomplish their goals (Guetzkow, 2002).

Modern psychology emphasizes the importance of positive human social connection for health, wellbeing and survival (Art Works, 2011). Both early and modern psychologists argued that social connection – "the development of positive relationships with others in the social world – is a basic psychological need and motivator essential for human development and survival" (Art Works, 2011). Years of research on social connection confirmed its link to a number of psychological and physical health benefits, as well as to longevity (Art Works, 2011). However, research shows that social connection is notably decreasing in modern US society (Art Works, 2011). Not only are household sizes shrinking, but biological family and friends are "more geographically and emotionally disconnected from one another than ever before" (Art Works, 2011). As a result, loneliness, isolation and alienation are on the rise (Art Works, 2011). In fact, these are the main reasons that people today seek psychological counseling (Art Works, 2011).

Psychological theorists and practitioners have demonstrated that social connection is an essential and critically important human need (Art Works, 2011). Some believe social connection is beneficial as it gives a sense of "self - other overlap and similarity that induces a feeling of positivity. This feeling of similarity and positivity leads to a feeling of connection, even when the "other" was previously considered an out-group member; moreover, the sense of connection, when it occurs, expands to the entire out-group (Art Works, 2011).

The arts have a positive impact on social connection, which then leads to benefits, such as improved health and other factors listed below. The arts encourage social connection through involvement of a group of people in common activity. Active and passive arts activities such as theatre production or theatre-going, dancing classes, painting classes, choir and art museum visits, increase social connectivity. For a long time, arts participation and arts learning have been believed to “support the development of human potential” (Institute of Medicine). Involvement in and learning the arts exposes an individual to multiple ways of experiencing the world, thus increasing the potential for human development (Institute of Medicine).

There is a strong correlation between social connection and subjective wellbeing (Art Works, 2011). Socially active individuals with satisfying social relationships report above average levels of happiness, lower levels of anxiety and depression, and greater resiliency when coping with stressful environments and life events (Art Works, 2011). A state of wellbeing has been linked to numerous benefits (Art Works, 2011). For example,

- a. Wellbeing maximizes intellectual resources, such as flexible thinking and creativity
- b. Wellbeing also maximizes social resources, such as the ability to connect with others
- c. Wellbeing improves physical resources, such as *improved health and coordination*
- d. Wellbeing has been shown, to influence positively, *psychological resources such as resiliency and optimism*
(Art Works, 2011)

For people with low levels of social connection, the opposite of all benefits listed above holds true (Art Works, 2011). A lack of social connection leads to greater psychological distress (Art Works, 2011). Furthermore, it hinders one’s ability to create and maintain positive interpersonal relationships (Art Works, 2011). In fact, low social connection can lead to hostility, jealousy, social anxiety, low interpersonal trust, a lack of or reduced self-esteem, and lower sociability (Art Works, 2011). This leads to a vicious cycle - notwithstanding an even greater

need in such people for belonging, they avoid social engagement and retreat from opportunities to connect with others (Art Works, 2011). On the occasions when people with low social connections do engage with others, they often have a negative view of these relationships and display dysfunctional interpersonal behavior (tied to the negative emotions discussed above) (Art Works, 2011). This results in a feeling of greater disconnection and thus a lower quality of life (Art Works, 2011).

The arts increase social connection and therefore have a positive impact on quality of life among older adults. Between 2005 and 2030, the number of adults aged 65 and older will almost double from 37 million to 72 million (Erikson, Erikson & Kivnick, 1986). The incidence of chronic disease is rising within this age group (Institute of Medicine). Eight out of ten older adults have one or more chronic diseases requiring coordinated and compassionate care. As a result, U.S. policymakers, health practitioners and the public must place greater emphasis on developing solutions to long-term care and the provision of care (Institute of Medicine). The arts are a viable solution as research shows that the arts improve quality of life among older adults (Institute of Medicine).

For example, one study measured the impact of professionally conducted cultural programs on the physical and mental health and social functioning of 166 healthy, ambulatory older adults (average age 80) in the Washington, DC area (Institute of Medicine). The study participants were randomly assigned either to an intervention group (choir group) or control / comparison group (usual activity) (Institute of Medicine). Participants were assessed at baseline and after 12 months, with results indicating a positive impact and effectiveness of the intervention (Institute of Medicine). Those in choir reported higher overall physical health, a reduction in the number of doctor visits, fewer medications needed, fewer instances of falls and fewer health problems than those in the comparison group (Institute of Medicine). The group in choir also had better morale and less incidence of loneliness than the comparison group (Institute of Medicine). Furthermore, the intervention group showed an increase in total number of activities, while the comparison group showed a decrease (Institute of Medicine). Social connection is yet again linked to positive health outcomes. This study, then,

shows how cultural programs could beneficially impact quality of life among the elderly (Institute of Medicine).

“Meet me at the MOMA” was an evidence-based, nine-month study to gauge the effect of this program designed for people in early stages of dementia, and their family caregivers (Institute of Medicine). MOMA is the Museum of Modern Art in New York City. The participants included eight adults with dementia and their family member (who was the main caregiver) (Institute of Medicine). The program included a tour, led by an art educator, that presented art in a predetermined sequence (Institute of Medicine). The tour lasted about 1.5 hours with 15 to 20 minutes devoted to each piece of art (Institute of Medicine). The results were statistically significant mood changes in both the dementia patients and the caregiver group (Institute of Medicine). Moreover, caregivers reported improved self-esteem – it was gratifying to see their family members treated respectfully, and they liked having the ability to interact with them in a beautiful, gracious environment (Institute of Medicine).

Another study considered artists as role models for society. Our society's workforce is in flux as it must accommodate a range of people, from retiring baby-boomers to workers with multiple careers. The goal of the study was to better understand how artists “who often reach artistic maturity and increased artistic satisfaction as they age” are incorporated into and supported by their communities and how their social network morphs over time (Institute of Medicine). In general, “artists have robust social networks – a strong indicator of social capital” (Institute of Medicine). Once again, high social connection correlated to positive health outcomes. The artists in the study ranked high on scales measuring life satisfaction (Institute of Medicine). They also displayed high self-esteem as individuals and as artists (Institute of Medicine). Most artists in the study reported they will never retire. It is notable that while self-esteem typically declines with age, over 83% of aging artists who were still working rated their self-esteem both as artists and as individuals as good to excellent (Institute of Medicine). In general, older adults with strong social networks are more likely to stay out of nursing homes and to experience quality of life benefits, as compared to adults with less diverse social networks (Institute of Medicine).

Arts programming for the community (as envisioned in Project HEAL's Smoketown Laundry & Neighborhood Wealth Incubator) is feasible for adults and children alike, since creativity can be taught and learned (discussed above). Many arts programs are group endeavors allowing participants to meet and engage with others. Thus, arts programs enhance social connection which in turn accelerates the health benefits previously discussed including decreased anxiety and depression, improved mental outlook, high self-esteem, greater life satisfaction, decreased incidence of cardiovascular disease, improved overall physical health. Additionally, increased social connection has also been shown to have positive effects on cognition in adults.

ii. ENHANCED COGNITION and MENTAL FUNCTION AMONG ADULTS

Research indicates that perceived social isolation (i.e., loneliness) is a risk factor for, and may contribute to, poorer overall cognitive performance, faster cognitive decline, more negativity and depressive cognition, and heightened sensitivity to social threats. These all threaten social cohesion. These differences in attention and cognition impact emotions, decisions, behaviors, and interpersonal interactions that may contribute to the association between loneliness and cognitive decline and between loneliness and morbidity more generally (Cacioppa & Hawkley, 2009).

By improving the quality of interactions between individuals and groups, the arts can decrease perceived social isolation which, in turn, positively impacts cognition.

To examine lifelong learning and the effect of the arts on cognition in older adults, one study analyzed the effects of theatrical training on cognitive function and quality of life (Institute of Medicine). Cognitive function and mental health were assessed through tests of word recall, listening tasks, problem solving and measures of self-esteem and psychological wellbeing (Institute of Medicine). The theater group scored significantly higher than the control group on recall and problem-solving and on psychological wellbeing (Institute of Medicine). Testing was repeated four months after the intervention, to ascertain whether the effects were maintained in the theater-intervention group. The four-month testing showed

significant increases in word recall scores and no significant decline in mental health measures (Institute of Medicine).

Gains in cognitive ability result from arts engagement. Several studies show improvements in cognitive function and self-reported quality of life in older adults engaging in the arts and creative activities, as compared to adults not participating in such activities (Institute of Medicine).

Studies focused on the senior years have illustrated that arts participation and arts learning additionally may reduce the need for medication, reduce falls by improving gait and balance, and improve brain fitness (Institute of Medicine).

iii. INCREASED CIVIC ENGAGEMENT AMONG ADULTS

In addition to being associated with physical, mental and emotional wellbeing, high social connection correlates to “positive interpersonal orientation and behavior” (Art Works, 2011). Those with high levels of social connection view others positively – as trustworthy and nonthreatening (Art Works, 2011). This may make it easier for these people to foster and develop social relationships, creating more social connections and interpersonal engagement (Art Works, 2011). It is a positive feedback loop, of sorts.

Social connection is associated with prosocial behavior not only in children, but also in adults (Art Works, 2011). While it is difficult to determine if the benefits of volunteering stem from the prosocial activity itself or from the social connections that result from volunteering, it is clear that social connection correlates with such prosocial activities as volunteerism. Volunteerism, in turn, is associated with beneficial outcomes and higher levels of social connection (Art Works, 2011). Experimental findings prove that social connection promotes prosocial behavior – people with high social connection are quicker to forgive others, cooperate and help more often when requested, and take joy in other’s successes without negatively affecting their own self esteem (Art Works, 2011).

Prosocial tendencies lead to a perceived "self-other" similarity. This perception generates feelings of positivity, empathy and pro-sociality toward others (Art Works, 2011). It tends to reduce the strong in-group bias and instead allows a sense of similarity between self – others (Art Works, 2011). The social

psychological literature states that humans naturally harbor in-group bias (Art Works, 2011). This occurs when one has a sense of connection (which fosters empathy and prosocial behavior) with members of the same perceived group, but not with those considered “other” (Art Works, 2011). In-group bias is frequently accompanied by a sense of separation and disconnection from out-group members, leading to aggression and competition (Art Works, 2011). In-group bias, then, may lead to low social connection.

People with low social connections engage in less prosocial behavior and more aggression due to their lack of social competence and fear of rejection (Art Works, 2011). Low social connection is tied to problematic interpersonal behavior in teenagers (Art Works, 2011). In a lab study where participants were led to believe others were excluding them, the participants’ prosocial behaviors (measured by donations, volunteering, helping behavior and cooperation) decreased while aggression increased (Art Works, 2011). There is a general association between low social connection and a tendency toward antisocial acts such as criminal and illegal offenses (Art Works, 2011). More specifically, social rejection “seems to have a highly disorganizing effect on people, leading to self-defeating, impulsive, and under-controlled behavior, which may explain the severe behavioral outcomes with which it is associated” (Art Works, 2011).

Arts programming at the Smoketown Laundry & Neighborhood Wealth Incubator, as discussed above, may improve social connection among participants. This enhanced social connection will most likely, in turn, accelerate civic engagement among those engaged in the arts.

II. Through arts exposure and arts engagement, the Smoketown Laundry & Neighborhood Wealth Incubator may accelerate FINANCIAL WELLBEING

Wellbeing, which may be established through social connection, leads to positive emotion (Art Works, 2011). Positive emotion is linked to the state of flow, which is “the ultimate fusion of mind with one’s work in an inspired, engrossed, focused and productive way” (Art Works, 2011). Those with positive emotion, who are consequently engaged in their jobs, are more likely to perform well and thus

experience job stability and economic security. Positive emotion and happiness foster qualities that create success and thus, frequently precede success (Art Works, 2011).

This is the grounding for Project HEAL's asset-based approach to creating community wealth through the Smoketown Laundry & Neighborhood Wealth Incubator. This type of economic development project is also referred to as "creative placemaking." In the Federal Reserve Bank of San Francisco's Community Development Investment Review (December 2014) "Creative Placemaking" (Volume 10, Issue 2) Ben Hecht, CEO of Living Cities, outlined the relationship between the arts and economic development as follows:

"The community development field has delivered unprecedented social change work since the 1960s: billions of dollars in private capital invested; hundreds of thousands of affordable housing units built; the development of many high-performing local, regional, and national nonprofit organizations; and the creation of the Low Income Housing Tax Credit, the most successful private-public partnership the nation has ever seen. The emerging creative placemaking field has a different but complementary set of assets. Creative placemaking leads with the ability to address the intangibles that make a successful and vibrant community, to mobilize social capital, to bring performance and participatory activities to public spaces, and—maybe most important—the capacity to challenge preconceptions about what a city is supposed to look like and how it works. The intersection of community development and creative placemaking holds great promise. If we combine the energy and spirit of creative placemaking with the demonstrated capacity and practices of community development, we can create an exciting, inspiring, and inclusive vision for our communities in the future" (Federal Reserve Bank of San Francisco, 2014).

By featuring a business incubator within the Smoketown Laundry & Neighborhood Wealth Incubator, economic wellbeing in Smoketown is likely to be impacted because the incubator will support small-business development. Research shows

that small business contributes to the creation of social value in communities and society. (Ribeiro-Soriano, 2017)

Research also shows that small businesses are key players in America's economy. Historically, the focus was on small businesses that failed rather than those which have thrived. Because of this emphasis, the alarming rate of small business failures and the reasons associated with these failures were highlighted. While small businesses have been susceptible to high failure rates, there exists a resurgence in the survivability of small businesses. Small businesses are now succeeding at unprecedented rates. One of the reasons for this paradigm shift can be attributed to the advent of business incubators. Business incubators, when adequately utilized, have supported managers and owners of small businesses by helping them gain enhanced managerial skills that are necessary for survival in a competitive environment. While all incubator programs have not achieved the same level of success, business incubators have been instrumental in the continual increase in small businesses survival rates (Wilber & Dixon).

The central idea behind neighborhood wealth building is in its name: *neighborhood*. It is centered on the idea that the first step in revitalizing an area should be to leverage the resources already found in the community. This means utilizing local assets, forging partnerships between new and existing institutions and businesses, increasing access to capital, expanding businesses ownership, and employing non-extractive mission-driven business and financial practices to create a thriving local economy with quality jobs and a deep sense of inclusion and community. Centering around these ideas, neighborhood wealth building looks to:

1. Leverage and develop underutilized local assets like colleges and hospitals by having them partner with local small businesses, cooperatives, and farmers, and by having them serve as business incubators, network builders, and workforce development sites
2. Establish broad-based local ownership through worker cooperatives, community land trusts, municipal ownership of utilities, and alternative methods of financing such as community development financial institutions and public banking

3. Promote the buy-local movement and mindset by connecting economic anchors like hospitals and colleges and economic engines like restaurants and hotels to local farmers, cooperatives, and fellow businesses.
4. Systematically bring together a breadth of stakeholders and forge lasting partnerships among small businesses, anchor institutions, local governments, small farmers, worker cooperatives, unions, nonprofits, and so on, through revolving loan funds, purchasing contracts, and other such methods.
5. Create high *quality* jobs, not just a high *quantity* of them.
6. Connect business incubators and workforce development programs to the local economy and existing institutions for more effective transitions into the business-world and workforce.

This project may reveal a means of revitalizing the Smoketown through community-based financing options such as participatory budgeting, public banking, and impact investing. It means connecting “mom and pop” shops to local workforce development programs, in order to give workers who are struggling to find employment decent paying jobs and to give business owners looking for workers well-trained and eager employees. It means fostering a culture of ownership and shared prosperity through the establishment of a network of mutually supportive employee-owned businesses that provide good jobs and fair wages. It means facilitating a mission-driven approach to business through social enterprises, benefit corporations, and B Corps in order to address oftentimes overlooked social issues. It means leveraging anchor institutions, such as hospitals and colleges, as partners of small businesses and cooperatives, as incubators, as network builders, and as workforce development sites. It means celebrating and harnessing Smoketown’s history and character of being a Black community that is welcoming to hardworking people of all religions, races, nationalities, and sexual orientations.

<http://cnycia.org/dev/economic-development/what-is-community-wealth-building/>)

III. The Smoketown Laundry & Neighborhood Wealth Incubator will improve the BUILT ENVIRONMENT

The environment in which one resides has a profound effect on health, including mental wellbeing. Vacancies are widespread in Smoketown. From data collected in 2012, 34% of all properties in Smoketown were vacant. Vacant and abandoned lots influence not only the physical appearance and property value of a neighborhood, but also affect the mental outlook and health of neighborhood residents. Having one less vacant and abandoned property in Smoketown, through the establishment of the Smoketown Laundry & Neighborhood Wealth Incubator, is a step toward improving built environment.

3b. Potential Negative Impacts of the Smoketown Laundry & Neighborhood Wealth Incubator

Depending on the practices of the individual facility, commercial laundries may pose a significant threat to the environment (Martin). Chemicals used in commercial laundries pose significant hazards to the environment and can dramatically affect ecosystems (Martin). Detergent components, including inorganic phosphates, can cause eutrophication (they flood the water with nutrients and reduce oxygen content) in fresh water (Martin).

Additionally, because people will be living above and around the laundry, care must be taken to mitigate any unforeseen negative health impacts resulting from laundry products. For instance, one study found that scented laundry products emit hazardous chemicals through dryer vents and the top-selling scented liquid laundry detergent and scented dryer sheet contains hazardous chemicals, including two that are classified as carcinogens. (Steinemann, Gallagher & Davis, 2011). The research builds on earlier work that looked at what chemicals are released by laundry products, air fresheners, cleaners, lotions and other fragranced consumer products. Manufacturers are not required to disclose the ingredients used in fragrances, or in laundry products. Steinemann recommends using laundry products without any fragrance or scent.

In addition, washers and dryers use a remarkable amount of energy (Martin). However, developing a more eco-friendly laundry facility is possible. A typical

washing machine uses 27 gallons of water per load (Martin). An Energy Star certified washing machine averages 14 gallons per load, thus cutting water consumption nearly in half (Martin). Furthermore, Energy Star certified washers will save substantial energy (Martin). Dryers equipped with moisture sensors will prevent energy waste by stopping the dryer when clothing is dry.

4. Conclusion of Assessment Section

The March 11, 2011 convening in Washington, DC, hosted by the US Department of Health and Human Services (HHS) and the National Endowment for the Arts (NEA), showcased some of the most compelling studies and evidence-based programs across the US that identified positive cognitive, social, and behavioral effects of arts interventions (Institute of Medicine). At this meeting, Charles Landesman, the Chairman of the NEA, stated that the NEA and HHS “share a fundamental mission – to improve the quality of life” (Institute of Medicine).

A multitude of studies show that arts participation and arts education are associated with improved cognitive, social and behavioral outcomes in a person across the lifespan – from early childhood to adolescence and young adulthood and into the senior years (Institute of Medicine).

Research shows that arts engagement in older adults encourages health-promoting behaviors (physical and mental stimulation, social engagement, self-mastery and stress reduction) (Institute of Medicine). But there are gaps in the research – in a literature review to analyze the participatory arts programs for older adults and their reported impact on health outcomes only 11 eligible articles were identified, indicating a lack of research in this area (Institute of Medicine). The role of arts intervention in the health of older adults is an area ripe for further research. Research and analysis is necessary to confirm that arts engagement does indeed have the beneficial effects noted above, and to identify which kinds of arts interventions are the most effective (Institute of Medicine). Furthermore, cost-benefit analyses should be performed to quantify the long-term savings that result from integrating arts into both therapeutic and preventive programs for older adults (Institute of Medicine). Finally, the field of intergenerational arts learning is

promising for leveraging the strengths, experiences, and skills of older adults (Institute of Medicine). Research is also needed into the potential benefits resulting from programs engaging older and younger people together in arts-learning as individuals, families and community members (Institute of Medicine).

The arts appear to have a positive impact on health. Research shows that the arts may affect school-readiness of young children at risk, including children from low-income and racial / ethnic minority backgrounds (Institute of Medicine). Research also affirms that the arts have a positive effect on academics and behavioral outcomes in youth (Institute of Medicine). Furthermore, studies on the impact of arts learning and engagement have shown a variety of beneficial health, cognitive, and social outcomes for older adults (Institute of Medicine).

However, there are marked gaps in this research (Institute of Medicine). Larger, more robust studies are needed across the sectors of health and human services to strengthen an evidence-based body of knowledge. Such research would provide justification for broad-based policy changes and best practices implementation and replication (Institute of Medicine).

Certain challenges to the research remain (Institute of Medicine). For example, there is a lack of coordination among federal agency departments and investigators and practitioners from various disciplines (such as arts education, child development, nursing, educational psychology, cognitive neuroscience, behavioral and social sciences, and geriatrics) to pursue a rigorous research to understand the role of arts and arts education in human development (Institute of Medicine).

Another limitation was the small sample size in research on arts and human development which limits generalizability of results (Institute of Medicine). The majority of research thus far relies on correlational data as opposed to results from well-controlled trials (Institute of Medicine). Also there was a lack of longitudinal studies (Institute of Medicine).

The low visibility of research findings, program evaluation data and evidence-based models integrating the arts into health and educational programs across different segments of the lifespan is also problematic (Institute of Medicine).

There is an increasingly diverse population with rising numbers of those facing retirement (baby boomers) (Institute of Medicine). This, combined with the larger numbers of adults struggling with chronic diseases create a climate ripe for creative engagement and lifelong arts learning that are likely to prove instrumental to better health and wellbeing (Institute of Medicine). At the same time, education leaders and communities dealing with large percentages of Americans who fail to complete high school, are seeking innovative and effective strategies to engage students and boost achievement levels. In this environment, a stronger role for arts education should be explored (Institute of Medicine).

At the NEA-HHS convening, NEA Chairman Landesman stated at the opening of the event that “the arts are central to human development. Movement, song, rhythm, and storytelling are the earliest ways that babies and their families interact, and these are the same impulses that stay with us over our entire lives” (Institute of Medicine).

Closing Thoughts: *Health Is a Social Justice Issue*

An Essay by Theo Edmonds and Poem by Hannah Drake

I am a gay Kentuckian born and raised in Appalachian coalfields of southeastern Kentucky Breathitt County --the same county that is birthplace of Kim Davis and focus of New York Times Best Seller, "Hillbilly Elegy." In 2017, Breathitt County was one of 13 counties nationally where newborn children are expected to live less years than their parents. Four of the other 13 are the adjoining counties to Breathitt.

All my family still lives in Breathitt County. My granny is 99 this year. Papaw died more than a decade ago. For 50+ years, they ran a little country store in a rural Breathitt community called Highland, where most everyone was poor. The store was next door to a school, built not long after the civil war. It's where granny went (1st-12th grade). Education was a value. The entire community took part in making sure it happened for young people. Granny was postmistress and mentor to generations of kids who came to her for help with almost everything. If she didn't know the answer, she would work with them to figure it out.

Papaw would regularly take people in our community the 15 or so miles back and forth to town for doctor's appointments. He would haul coal to help people stay warm in winter. I never saw Papaw say no to anyone who needed help. Papaw himself had been raised by his grandmother in Alabama. His mother died in childbirth and his father was not around much. In part, I am convinced this is where his deep humanity came from.

In this little mountain community, it was understood that we were all in this life together. If one family needed help, it wasn't just their problem. Everyone had a role to play in helping to solve it. This is how granny and papaw lived their lives.

They were part of an informal community support network who worked together - farmers, teachers, preachers, artisans and the like - to reduce poverty, improve health, and increase education and access to information.

This integrated social network helped everyone to have more TIME to accomplish things in life that were meaningful because the work to be done was distributed.

As a result, generations of families in our poor Appalachian community were able to go on to college and pursue dreams of every shape and size. And, everyone has dreams. Dreams are not a one size that fits all thing.

It's expensive to be poor.

For all of our discussions about the effects of poverty, "time poverty" is one of the things that I believe we are not yet talking about in a meaningful way.

In a recent article from The Atlantic, Derek Thompson writes:

"The world has its thesis on wealth inequality. But it lacks a comprehensive way to talk about something larger - the myriad forces that exacerbate inequality that have nothing to do with 'capital.'

Let's call it Total Inequality.

Total Inequality is not merely income inequality (although it matters) nor merely wealth inequality (although that matters, too). Total Inequality would refer to the sum of the financial, psychological, and cultural disadvantages that come with poverty. Researchers cannot easily count up these disadvantages, and journalists cannot easily graph them. But they might be the most important stories about why poverty persists across time and generations.

It's expensive to be poor - in ways that are often quantitatively invisible.

Research on the psychology of poverty suggests that not having enough money changes the way that people think about time.

It's hard to prepare for the next decade when you're worried about making it to next Monday."

We all have 24 hours a day.

In poor communities, making the healthy choice the easy choice may be a luxury if a person is working two jobs.

Time poverty is further compounded in many communities of color due, in part, to the structural racism. The cumulative effects of the "isms" in general (racism, sexism, classism, ableism, ageism, heterosexism, etc.) are literally killing us.

We all have a limited number of years in a lifetime.

In communities of color, like Louisville's Smoketown, it is a statistical fact that the average life expectancy is about nine years less than the average for the city of Louisville. There are roughly 2,000 people who live in Smoketown. Just doing some basic math, this means that cumulatively, the families who live here have 6,500,000 fewer days than other communities of the same size.

6,500,000 fewer days to live, work, worship, learn and play.

Circumstances are cumulative. Parents are caught in a whirlpool of poverty that prevents them from escaping to the middle class when they grow up. Thus, catching children in the same cycle.

The silver lining is that the logic of Total Inequality suggests that interventions should be cumulative, as well. For example, when a person has the family and social support systems in place to help them finish college, they triple the chances that their child will finish college. Those with higher educational attainment also have a longer life expectancy.

Family and social support. Educational attainment. Place-based jobs. These have been proven to increase both life expectancy and quality of life.

Over the past 5 years, IDEAS xLab has focused on innovative arts projects to help us understand health in a new way.

This work resulted in a different kind of framework for deploying artists to support increased social cohesion, educational achievement and place-based job creation as the core elements of a new kind of health justice initiative called Project HEAL.

Being healthy is not a "goal" for most people. So, the health care industry needs to stop treating it that way.

The goal for most of us is doing things in life that have meaning. Health helps us do the things we care about or holds us back. Different things are meaningful to different people. One size does not fit all.

Health, when combined with creativity and empowerment, transforms what a person can't do into what a person (or community) can do.

This is why health justice is also good business.

Healthy, creative, empowered communities can more fully participate in the economy. When all communities are able to fully participate, it creates a more diversified workforce. Diversity is the fuel of innovation and the cornerstone of resilient, integrated economies.

We must accelerate the pace and scale of health improvement in America. This will require finding new ways to build community agency -- social, political and economic capital. We must do better at connecting the grass roots to the grass tops.

New types of organizations are needed to bring social innovation to the effort of overcoming the disconnect between the health sector and communities by tapping into the power of communities to shape the future of their own health. When such an approach is combined with the energy and creative power of arts and culture, a new transdisciplinary field can emerge at the intersection of arts, humanities and population health. One that is geared toward social innovation in policy change.

In the 21st century, US policy leaders in health and education have increasingly acknowledged the need for interventions to address “the whole person.” This prompted the quest for a more integrated approach to policy development that can affect Americans at various life stages, across generations, and in multiple learning contexts. An arts and humanities approach provides an opportunity to accelerate the impact of the traditional levers of change like education, urban planning and workforce or economic development.

An abundance of literature supports the positive health impacts of arts and culture engagement. We know well the evidence that shows the basic biometric benefits experienced by individuals through art and music therapy. Recent years have

brought a deeper understanding of the intentional role that arts and culture can play in community development through creative placemaking.

Organizations like the Robert Wood Johnson Foundation have expanded our understanding of the primary and interconnected nature of the social determinants and physical environment on community health. Philanthropy is beginning to understand new models for shaping policy where equity, social justice and evolved forms of community organizing must play a central and intentional role.

Project HEAL potentially offers an opportunity for synthesizing all of these efforts into one, outcomes-based, model.

Project HEAL uses arts and culture as accelerating factors within traditional levers of change—such as schools, workforce development and community organizing. This approach shows promise for:

- creating a new bridge between the “grass roots” with the “grass tops”,
- bridging the “trust barriers” which exist between local communities and external professionals in the health sector,
- producing better “language” for talking about health in communities, and
- developing new transdisciplinary opportunities for advancing health protective policies with as specific focus on the arts as accelerating factors for impacting the social determinants.

By training artists to harness the unrealized potential of a community’s social networks (live, work, worship, learn, play), Project HEAL has a triple aim impact:

1. Catalyzing Community: transforming communities by building social, political and economic power through arts and culture interventions.
2. Moving Policy: using arts and culture as a form of language and as an experiential learning tool for building community capacity for self-advocacy around proven health policies, both public and private.
3. Shifting Culture: developing a new health sector narrative that shifts it from a “sick-care provider” to a sector whose mission is “to support people’s dreams and to enable hope.”

This is a massive transformational purpose for which arts and culture are uniquely suited. We hope you will join us in making Project HEAL a reality.

Who I Be

by Hannah Drake, IDEAS xLab Health Equity Strategist + Spoken Word Artist

I Be

Deformed destinies

Hunchbacked haikus

Dreams deferred

I be's...life

I be's

Tattered

Bruised

Enraptured

Beat down

Loved

Stomped on

Abused

I be's...Power

A shout in a room filled with whispers

The flow of the Nile

David's psalms

Africa's drumbeat

Eric Garner's last words

I be's Nina Simone's blackbird

Paul Dunbar's mask

Maya's knowledge of why the caged bird sings at last

I be's

Nas's one mic
Robert Frost's road not taken
Langston's raisin in the sun
I be Mike Brown's hands
I be's revolution
So let me be
Let us be
Loud
Fearless
Magnificent and Brilliant
Let us be rhythm
Let us be the womb of our ancestors
Let us be restored
Let us be marvelous, authentically us.
Let us be Africa's heartbeat
Let us be great, dynamic, breathtaking
Let us be love
Let us be light
Let us be...everything.

HIA RECOMMENDATIONS

Recommendations for Maximizing Health Benefits of Project HEAL

1. Assure Smoketown stakeholders that the arts are inclusionary and open to everyone, especially Smoketown residents. IDEAS xLab should implement a robust marketing campaign to publicize the arts programming and services available through Project HEAL. It is important to convey to residents that active and passive participation in the arts is meant for all, regardless of race, education level and socioeconomic status.
2. Efforts must be made to increase residents' access to Project HEAL sites and programs. Project HEAL's community health worker is pivotal to this strategy.
3. Market arts programming to youth as a long-term strategy to improve educational achievement within the Smoketown community. Offer arts programming in the form of arts-based experiences that combine the humanities and social studies with science, technology, engineering and math. The Hero/Shero Journeys Project could be a foundation for developing a replicable curriculum that can achieve this goal.
4. Advertisements are so omnipresent in modern society that it's almost impossible to imagine the world without them. However, in a sweeping global trend, to eliminate the "visual pollution" caused by advertising signs and billboards, many cities are forfeiting revenue and taking back public spaces. The U.S. states of Vermont, Maine, Hawaii, and Alaska have banned billboards, and approximately 1,500 cities nationwide have limited public advertising. It's not just aesthetic— the movement is a part of a larger conversation about culture and human rights and potentially undermines the historic purpose of public spaces, which is to represent the character and achievements of its inhabitants. As expressed by Ms. Farida Shaheed, Special Reporter for the United Nation's field of cultural rights, "Cities that wish to protect cultural diversity...must protect their societies from undue levels of commercial advertising and marketing, and ensure that public and civic spaces remain spheres for deliberation, cultural exchange, social cohesiveness and diversity, places for debate and

discussion, artistic and other self-expressions" (Kinney, 2017). To be successful, Project HEAL may need to engage in a public campaign that (1) defines the policy issue narrowly so that it can be acted on in ways that avoid infringement on First Amendment rights, and (2) has enough funding to sustain what will most likely be a prolonged process against the well-funded advertising industry.

5. Project HEAL should continue to develop and market arts and culture programming geared toward developing evolved, evidence-informed models of social justice. Project HEAL should use the arts as a long-term strategy both (1) for building capacity among Smoketown residents, and (2) for other community stakeholders to become more civically engaged in community development policy related to matters such as zoning, as well as other local or state rules, ordinances or laws that potentially cause increased racial or economic segregation.
6. Lastly, maximizing health benefits of Project HEAL will require overcoming a significant barrier of financing Project HEAL. In a recent report entitled "Creative Places and Businesses" Upstart Co-Lab, a fiscally-sponsored project of Rockefeller Philanthropy Advisors, defined part of the challenge this way, "The Creative Economy in the U.S. is more than \$704 billion or 4.2% of U.S. GDP. But currently, 0% of impact investment is in the arts & culture sector" (Calvert Foundation and Upstart Co-Lab. (2017). This will require IDEAS xLab to work closely with investors, public health researchers and those who might bear the cost of healthcare (i.e., employers and insurers). Collectively, the group will need to develop shared definitions and metrics, and increase capacity for community lenders. One area of scalable innovation that Project HEAL may be able to offer, because of its focus on population health, is to develop a social impact or pay for success financing model tied to quantifiable community health outcomes.

Recommendations for Ensuring Success of Project HEAL at other sites

Much of the credit for Project HEAL's successful implementation in Louisville, KY is due to the dedication, passion, enthusiasm and tenacity of

both the IDEAS xLab team and the public health research coordinators at the University of Louisville School of Public Health & Information Sciences. It would be beneficial, if not necessary, to have local leadership teams with similar qualities at future Project HEAL sites.

MONITORING

In January 2018, if funding is in place, IDEAS xLab will provide on-site training in HIA recommendations for Project HEAL model for community leaders, developers, artists, cultural organizers, and health professionals at each location.

IDEAS xLab will work to create and monitor a "wellbeing index". This includes assessing 5 factors (data, impact, equity, culture, policy) of community change across 5 dimensions:

1. Community
2. Place + Planet
3. Learning
4. Health
5. Economic Opportunity

To sustain community engagement during the policy change process, the arts and culture programming transitions from "tools of discovery" to "tools of advocacy and education. All projects will be documented and shared through social media and other communications channels.

EVALUATION

SPECIFIC AIMS

Health and wellbeing are **culturally** created. A social ecological perspective of health acknowledges determinants of health at multiple levels: individual, interpersonal, organizational, community, policy, physical environment, and culture (McLeroy et al., 1988; Simons-Morton, McLeroy & Wendel, 2012; Simons-Morton,

McLeroy & Wendel, 2011; Wendel, McLeroy, & Garney, 2015). The levels are conceptualized as nested systems, meaning each level is influenced by the levels above it. This model offers a framework for understanding a variety of factors that produce and maintain health, as well as the relationships of factors at different levels (Simons-Morton, McLeroy & Wendel, 2012). Theorizing culture as the broadest level, and the influence it exerts on each subsequent level, it is reasonable to hypothesize that within culture there are levers of change that can greatly influence population health outcomes.

Project Heal evaluation activities are expected to document and standardize a community-based process to train and activate artists to engage in local cultural production targeting health improvement. The intent is to facilitate replication and scalability in a variety of communities, regardless of context.

Project HEAL's evaluation team, comprised of public health researchers, will use solid methods from several disciplines to evaluate the results through science. One goal of the formative evaluation is to standardize the process to understand what Project HEAL mechanisms are effective so evaluation can facilitate replicability and scalability. To accomplish standardization, researchers observe iterations of the process over time in different communities. In addition to investigating processes, we are working to establish a cross-cutting evaluation that gives us comparable data from multiple sites regarding target outcomes, but also allow space for individual communities to include their local prioritized outcomes within their local evaluations as well.

To that end, the three specific aims are:

Aim 1: Document and standardize the processes and mechanisms of the Project HEAL model to create a scalable, replicable model for implementation

Aim 2: Develop a strategy for utilizing methods from multiple relevant disciplines to evaluate the outcomes and impacts of Project HEAL activities in 7 geographic communities while accounting for contextual factors

Aim 3: Conduct field building work to connect fragmented players at the intersection of art, culture, population health and policy to serve as an evidence-based foundation for establishing artists and other cultural workers as an allied population health workforce

SCIENTIFIC APPROACH

In addition to documenting Project HEAL's processes and creating a model for standardized evaluation across implementation sites, the proposed research seeks to answer two research questions (RQs):

RQ1: How does organizing arts/humanities assets in a Health in All Policies framework impact community involvement in policymaking?

RQ2: In what ways can training artists/cultural workers as community health catalysts (1) impact health related quality of life and (b) facilitate new co-creation models for population health innovation.

RQ3: In what ways can training artists/cultural workers as community health catalysts facilitate new co-creation models for population health innovation.

PROCESS EVALUATION

The process evaluation for Project HEAL will serve to understand, standardize, and refine the implementation model to facilitate replication, and will focus on critical activities:

1. Process mapping and evaluation
 - a. HIA Process (as adapted to Project HEAL's arts and culture-intervention based model)
 - b. Project HEAL Process,
2. Documentation
3. Collective reflection

Process Mapping and Standardization:

Process mapping is a business tool used in industry for decades to document and understand workflow and production, to standardize processes, and to contribute

to quality improvement (Damelio, 2011; Hunt, 1996). This also increases transparency of what processes are implemented and who is responsible (Damelio, 2011). Process mapping is applicable to this type of project in articulating and distilling the critical elements of the Project HEAL model to allow for effective replication (Hunt, 1996).

In developing a process map for Project HEAL, IDEAS evaluation team will engage stakeholders from Smoketown to complete a five-step process (Hunt, 1996):

1. Identify the components of the process, including objectives, settings, and actors involved;
2. Gather information about actual implementation of the process from the people who are doing the work;
3. Illustrate the data gathered in a process map;
4. Analyze the process map with the team, comparing the implemented process to the intended process and identifying areas where things are not clear or not working as intended;
5. Refine the process for implementation in future iterations of Project HEAL activities.

Documentation

While the idea of research can be intimidating to people outside of academia, documentation is less daunting and more practical. Simply put, the IDEAS Evaluation team will develop guidelines for what types of documentation need to be collected at each site and provide tools and templates for the local team. Given the eventual development of multiple Project HEAL sites, the IDEAS Evaluation team will use a case study method as described by Yin (Yin, 2013) in order to construct a strong framework for the theory of change and theory of implementation that will aid in replication. This method calls for gathering and analyzing multiple sources of evidence, such as written project documentation, meeting notes, archival information, physical artifacts (i.e., artistic productions at each site), observation (direct or participant) and interviews (Yin, 2013). The original analysis will also provide a structure for a multiple case study design, as

replication sites are added, to further refine the model and understand influential factors (Yin, 2013).

Storytelling and Collective Reflection

The final element of the process evaluation is to capture storytelling and collective reflection at each site. In the two current sites (Smoketown, Louisville and Natchez, Mississippi) these phenomena occurred organically; documentation of those processes will help to intentionally integrate them into the Project HEAL model, as they raise critical consciousness and are necessary components of sustainable social change. The content of these stories and reflections, and how they are subsequently used, will also be important to understanding the experiences of people with different roles in and perspectives of how the project unfolded and what elements were important.

OUTCOME EVALUATION

Context-specific outcomes in each Project HEAL community will vary based on the artists chosen, the local interpretation of health and wellbeing, and the challenges that each community wants to prioritize. The IDEAS evaluation team will assist in articulating measures and metrics for site-specific outcomes of interest.

Across all Project HEAL sites, there are three main outcomes that will be assessed deriving from the research questions (RQ):

1. Policy change,
2. Health related quality of life, and
3. Innovations.

Policy Change (RQ1)

Regarding policy change, the IDEAS evaluation team will track and document the following information from the two pilot sites (Louisville, Kentucky – Smoketown, and Natchez, Mississippi) and develop a tool for future tracking:

- 1) What policies are targeted for change?
- 2) What is the goal of the policy change?
- 3) What actions were taken to advocate for the policy change?

- 4) What was the result of the actions (did the policy change)? and
- 5) What were the effects of the policy change?

This will allow comparison across sites as well as to explore the breadth of policy areas community members identified as priorities.

Health-Related Quality of Life (HRQoL) (RQ2)

The CDC's Health Related Quality of Life (HRQoL) measure is widely used in a variety of population surveys (Control et al., 2000; Norman, Sloan & Wyrwich, 2003; Osoba et al., 1998). This IDEAS Evaluation Team will procure data from the Behavioral Risk Factor Surveillance Survey (BRFSS) for Kentucky and Mississippi to understand trends and establish a baseline for each Project HEAL community (Smoketown: zip code 40203). These data will be obtained annually and analyzed to track HRQoL.

Innovation (RQ3)

A final outcome of interest is innovations that emerge through Project HEAL. Through the case study documentation, the Evaluation Team will identify new ideas from different sectors, how they are implemented, who is participating, and how those ideas might be transferrable to other populations and contexts. These can be shared across sites to foster diffusion (Rogers & Shoemaker, 1971).

The intent of Project HEAL is to build this transdisciplinary field by inspiring additional national interest in the intersection of art and health in population health improvement, by amplifying local stories and experiences to demonstrate the impact of cross-sector collaboration, by exploring the impact of Project HEAL's arts and culture lab-based process as a tool for policy change, and by identifying community characteristics supporting the development of artists as agents of change in shifting culture around Health in All Policies. Project HEAL's Design Team provides knowledge-sharing opportunities, including training and development programs and networking through opportunities such as language convenings, design jams, and symposia which will bring artists together with

leaders from other sectors to advance a transdisciplinary development process for field building at the intersection of art and health.

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ABOUT THE AUTHORS

Theo Edmonds is co-founder and Chief Imaginator at IDEAS xLab based in Louisville, Kentucky. With his partner, Theo founded IDEAS x Lab five years ago with the vision of creating new opportunities for arts and culture to positively influence community development and health. Theo was born and raised in the Appalachian coalfields in southeastern Kentucky. He is a former healthcare administrator and self-described “futurist, artist, poet and social entrepreneur.” Theo now lives in Smoketown and therefore does not consider the neighborhood and its residents as an “abstract concept.” Instead the people of Smoketown are his friends and neighbors, fueling Theo’s passion, vision and advocacy on behalf of the community.

His work at IDEAS xLab has at times been challenging – working at the intersection of health, community development and arts / culture, it has been difficult to align support and resources for the community-centered, innovative work and vision of IDEAS xLab. But he embraced the challenge and has been rewarded by personal relationships gained through the process. In his own words, Theo hopes that IDEAS xLab is able (1) “to develop a social justice model that establishes Project HEAL as an evidence-based, arts and culture population health intervention that reduces chronic disease and health disparities, and (2) to establish a credentialed training program for artists and cultural producers as a population health prevention workforce.” The racism, classism, homophobia and sexism in the US spur Theo on in his mission to create a more creative, just and healthy nation.

He was named as one of “50 People Changing the Face of the South” by Southern Living Magazine and is Vice Chair of Americans for the Arts' Private Sector Council, Co-Chair of the Louisville Health Advisory Board's Culture and Social Impact Committee, executive member of Louisville's LGBTQ+ Community Coalition and co-leader for Louisville's successful 2016 bid to be named a Robert Wood Johnson Foundation Culture of Health Prize winner.

Prasanthi Persad is the Health Impact Analyst at the Louisville Metro Department of Public Health & Wellness. In this capacity, she provided technical assistance with structure and analysis of the Health Impact Assessment, conducted a secondary literature review, and participated in community engagement and outreach. Prasanthi spent much of her childhood in a small town in southcentral Kentucky, where her observations of social hierarchy and class structure sparked an interest in addressing societal inequities. This led her to earn a law degree and a Masters of Public Health degree, with the goal of protecting and promoting the health and wellbeing of those who are most vulnerable in our society.

Monica Wendel is Associate Dean for Public Health Practice and Associate Professor of Health Promotion & Behavioral Sciences at the University of Louisville School of Public Health & Information Sciences. She also directs the Commonwealth Institute of Kentucky, a transdisciplinary collaborative that engages in research and analytics to inform equitable policy and practice. Her research, teaching, and practice all focus on social justice and equity by helping build critical consciousness and community capacity to address unjust conditions. She collaborates with experts from a variety of disciplines to ensure that her work is built on the best available science and methods.

APPENDIX

HIA Screening Worksheet

Screening Question	Response and Supporting Evidence
Project and Timing <i>Has a project, plan or policy been proposed?</i> <i>Is there time to conduct an analysis before the final decision is made?</i>	
Health Impacts <i>Is the decision likely to affect environmental or social determinants that impact health outcomes? If so, which determinants and which health outcomes?</i>	
Equity Impacts <i>Is the decision a priority for a community facing inequities? What evidence do you have for this?</i> <i>In what ways would health inequities be impacted?</i>	
Potential Impact of HIA Findings <i>Is the decision-making process open to input from a health perspective?</i> <i>Is health already being considered in the proposal or as part of the decision-making process?</i>	
Potential Impact of the HIA Process <i>What are the potential impacts of the HIA process? (e.g., building relationships, empowering community members)</i>	
Stakeholder Interest and Capacity <i>Which stakeholders are involved in the decision-making process?</i> <i>Do stakeholders have the interest and capacity to participate in the HIA?</i> <i>How would stakeholders use the HIA to influence the decision-making process?</i>	

Should we move forward with this HIA? Yes / No

HIA Screening Worksheet: Project HEAL

Project and Timing

Has a project, plan or policy been proposed?

- o Yes – The Smoketown Laundry & Neighborhood Wealth Incubator has been proposed for that neighborhood. Eliminating outdoor advertisements conveying negative messaging and replacing them with billboards and posters of poetry has also been proposed and prototyped. The Hero+Shero Journey Project, in school and out of school arts programming for middle school students, has prototyped and is being planned for expansion.

Is there time to conduct an analysis before the final decision is made?

- o Yes. The HIA is happening at the beginning of the project – renovations and retrofitting have not yet started on the building that is to become the Smoketown Laundry & Neighborhood Wealth Incubator. Thus, the HIA is timely as it is being done early in the development process. There are opportunities to influence design and implementation of the project before and after construction begins. The same holds true for the replacement of advertisements with negative messaging – this project has not yet started in Smoketown.

Health Impacts

Is the decision likely to affect environmental or social determinants that impact health outcomes? If so, which determinants and which health outcomes?

Yes, the project may affect the following social determinants of health (and health outcomes):

- o Social connection
- o Civic engagement
- o Education
- o Jobs and Economic Stability
- o Built Environment



Equity Impacts

Is the decision a priority for a community facing inequities? What evidence do you have for this?

- o Yes. Smoketown residents have specifically identified the need for a laundromat in the community. Since the closing of the Presbyterian Community Center located at 701 S. Hancock Street, the neighborhood has lacked a community hub and gathering place.
- o When asked what they would like changed in their community, Smoketown residents identified the preponderance of negative messaging on outdoor advertisements. There are many billboards and posters which encourage negative health behaviors and reinforce a poor quality of life.
- o Data indicates health inequities between the Smoketown neighborhood and Jefferson County at large. For instance, the Smoketown life expectancy is 69 (same as Iraq), which is about nine years below Louisville's average life expectancy. In addition, Smoketown residents have higher rates of drug and alcohol use, diabetes, heart disease, HIV-AIDS and death from homicide. Poverty, racism and unemployment abound. Also there are few transportation options and few stores providing healthy food choices.
- o With approximately 2000 residents, Smoketown ranks in the top 3 death rates of almost every major disease category such as diabetes and heart disease.

In what ways would health inequities be impacted?

- o Given the history of racial, health and economic disparities in Smoketown (across social, economic and health indicators), as compared to Jefferson County at large, Project HEAL has the potential to reduce disparities and inequities if properly implemented.

Potential Impact of HIA Findings

Is the decision-making process open to input from a health perspective?

- o Yes. IDEAS xLab – the non-profit spearheading Project HEAL – is open to the health information, evidenced by IDEAS xLab’s eagerness to have an HIA done for the project. At this point, they have primary decision-making authority over how the project progresses.

Is health already being considered in the proposal or as part of the decision-making process?

- o Improving and maximizing the health of Smoketown residents are key considerations of IDEAS xLab in this project. Not only was a laundry identified as a need of the community, but it has the potential to make the project financially self-sustaining. In addition to housing the Smoketown Neighborhood Association, non-profits, and small minority-owned businesses, the Smoketown Laundry & Neighborhood Wealth Incubator will also have on staff one to two community health connectors (CHC). The CHC will teach the importance of making healthy choices, serve as a health advocate, and connect community members to services. The goal of arts programming at the Hero+Shero Journey Project is to improve the health and quality of life among Smoketown youth and to lift their voices into environmental health policy. The One Poem at a Time project recognizes the influence of environment on physical and mental wellbeing, and seeks to improve both aspects of health by reducing negative outdoor advertisement with more positive messaging, namely poetry.

Potential Impact of the HIA Process

What are the potential impacts of the HIA process? (e.g., building relationships, empowering community members)

- o Work with IDEAS xLab to identify ways to mitigate negative health impacts and inequities that might result from the project
- o Work with IDEAS xLab to maximize potential positive health impacts of the project
- o Relationship building both amongst Smoketown residents and between Smoketown residents and other stakeholders (such as IDEAS xLab and its community of artists) through the HIA process and development & implementation of the project.
- o Empowerment of Smoketown residents through their involvement in Project HEAL and the HIA process.

Stakeholder Interest and Capacity

Which stakeholders are involved in the decision-making process?

Do stakeholders have the interest and capacity to participate in the HIA?

How would stakeholders use the HIA to influence the decision-making process?

- o At this point, IDEAS xLab holds primary decision-making authority for site development and work.
- o Other partners working on the project include YouthBuild Louisville, Simmons College, Bates Memorial CDC, Jewish Family and Career Services, Smoketown Neighborhood Association and Bingham Fellows
- o IDEAS xLab, YouthBuild Louisville, Simmons College, Bates Memorial CDC, Jewish Family and Career Services, Bingham Fellows and the Smoketown Neighborhood Association have the interest and capacity to participate in the HIA – particularly through the community engagement aspect of the HIA whereby stakeholders express their concerns.
- o The primary stakeholders, including IDEAS xLab and Smoketown residents, will tailor Project HEAL to yield the best possible health outcomes, as per the HIA recommendations.



SCOPING DIAGRAM (Logic Model)

1. CORE ACTIVITIES / INPUTS

1. Project HEAL
2. Artist Training
3. Arts and Culture
4. Programming
5. Community Members
6. Community Org Partners
7. Public Health Researchers



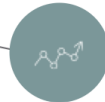
4. HEALTH OUTCOMES

- Δ Mental Health
- Δ Hypertension
- Δ Obesity
- Δ Cardiovascular Disease
- Δ Cancer
- Δ Diabetes
- Δ Access to Medical Care



2. IMMEDIATE IMPACTS

- Δ Stress Level of Residents
- Δ Feeling of Isolation
- Δ Social Connection
- Δ Solidarity
- Δ Hope and Resiliency
- Δ Cognitive Ability
- Δ Educational Achievement Opportunities
- Δ Political / Social Awareness
- Δ Civic Engagement
- Δ Built Environment



3. INTERMEDIATE IMPACTS

- Δ More Equitable Policies
- Δ HiAP Related to Social Determinants
- Δ Struggle against Racism and Classism
- Δ Social Justice
- Δ Community Leadership
- Δ Quality of Life
- Δ Financial Wellbeing