SCPHA SMART SURFACES ACTION REPORT

SCPHA
South Carolina Public Health Association

COOL CITIES EDUCATE
SCPHA SMART SURFACES

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Executive Summary

Extreme heat and climate-related flooding pose significant threats to public health, with heat being the leading weather-related cause of death in the U.S. and flooding contributing to respiratory and gastrointestinal illnesses. In Columbia, South Carolina, the South Carolina Public Health Association (SCPHA) and Smart Surfaces Initiative have worked diligently in combating this issue through focus groups, local advocacy, outreach, and education.

Around the US, as cities continue to grow, green and porous surfaces have been replaced with dark and impervious ones, leading to higher surface temperatures. These higher temperatures have exacerbated health and climate impacts, especially in low-income and communities of color. In Richland County, South Carolina, 54.7% of the population identify as people of color, 16.7% are reported as living in poverty, and 10.9% have no health insurance coverage.

The City of Columbia Tree and Appearance Commission, in partnership with Dr. Kristin Dow, Russ Jeter, Jim Irvin, and Jack McKenzie, received a grant from the National Integrated Heat Health Information System to work with CAPA in creating an urban heat map in 2022. The citizen science efforts found Downtown Columbia as much as **18 degrees** hotter than the suburban areas of Columbia (Richland County) such as Garners Ferry, Blythewood, and Lexington. The methods and results of this initiative can be found in the report at https://cpac.columbiasc.gov/urban-heat-island-mapping-initiative/#report.

To combat higher surface temperatures, some cities have planned initiatives to plant more trees and increase shade in city centers. However, additional efforts are needed. In low-income areas, many individuals struggle to pay high costs for air conditioning and transport themselves to cooling centers. The US Department of Energy (DOE) states, “The national average energy burden for low-income households is 8.6%, three times higher than for non-low-income households which is estimated at 3%.” Per the US DOE’s Low-Income Energy Affordability Data (LEAD) Tool, Richland County’s energy burden for low and moderate-income residents is as high as 20%. Furthermore, pets are affected by the heat, and many residents are not informed on the best methods to keep their families, pets, and children safe. Simply put, individuals across the state struggle with acquiring the adequate knowledge needed to survive extreme heat and keep themselves safe.

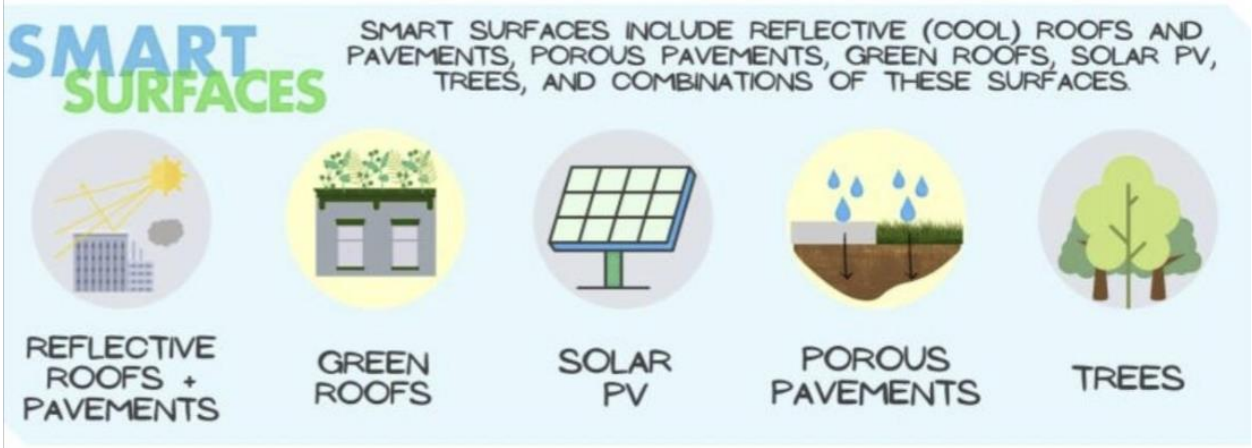
The American Public Health Association (APHA) is collaborating with the Smart Surfaces Coalition, National League of Cities, Metropolitan AME Church, and others to accelerate the implementation of smart surfaces in major cities. APHA invited its affiliates, including SCPHA, to join efforts in promoting the adoption of smart surfaces, offering

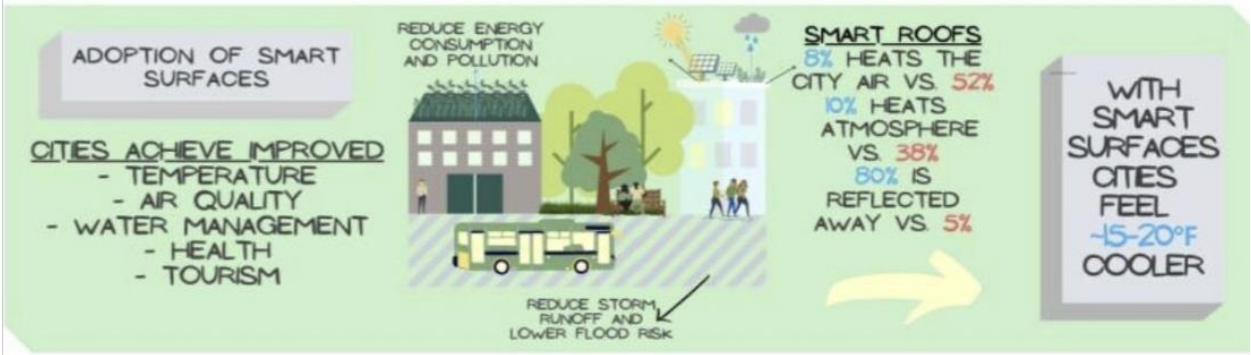
grant opportunities to accelerate their implementation and address the health impacts of climate change. In July of 2023, the City of Columbia, APHA, SCPHA, and the Smart Surfaces Coalition joined in a multi-year project and grant in order to cool cities, inform the public, and keep residents healthy.

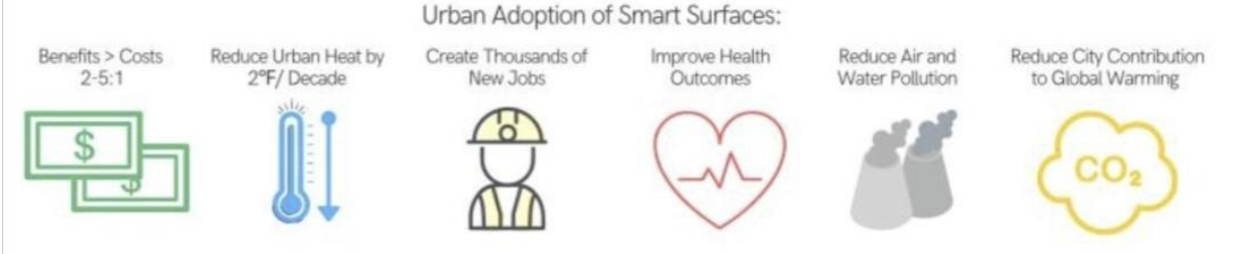
In South Carolina, July is reported as the hottest month of the year, with temperatures ranging in the high 90s to the 100s. As climate change worsens, South Carolina will face higher temperatures, more extreme flooding, and an increase in heat-related illnesses. Thus, it is important to develop effective methods that focus on populations more susceptible to heat (e.g., homeless individuals, children, pets, elderly, outdoor workers, etc.) in the City of Columbia.

SMART SURFACES COALITION

40 leading organizations with a transformative plan to cost-effectively cut city contributions to global warming by 10-15% and cool cities by 2°F each decade while improving city livability, health, and equity







Smart Surface Spotlight:

COOL ROOF

Cool roofs are engineered to reflect much more sunlight than conventional dark-colored roofs.

Benefits of cool roofs include:

- Reduced heating of buildings and neighborhoods
- Lower energy costs due to reduced demand for indoor cooling
- Global cooling
- Improved air quality

Learn more at **smartsurfacescoalition.org.**

Smart Surface Spotlight:

TREES

Urban trees are a valuable tool for improving public health in cities.

Benefits of trees include:

- Reduced temperature by up to 7°F during the day and 22°F at night
- Increased shade
- Reduced flood risk
- Decreased pollution
- More beauty and wildlife

Learn more at **smartsurfacescoalition.org.**

Smart Surface Spotlight:

POROUS & PERMEABLE PAVEMENTS

Pervious pavement technologies allow for groundwater recharge.

Benefits of permeable pavements include:

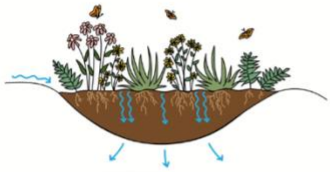
- Reduced stormwater runoff and flood risk
- Improved water quality due to the reduced likelihood of sewage overflow and the filtering capabilities of porous pavements

Learn more at **smartsurfacescoalition.org.**

Smart Surface Spotlight:

RAIN GARDENS & BIOSWALES

Bioretention systems like rain gardens collect rainwater and improve urban drainage.



Benefits of bioretention include:

- Stormwater runoff retention
- Stormwater pollutant filtration
- Habitat creation for native plants and wildlife
- Cooling

Learn more at **smartsurfacescoalition.org.**

Smart Surface Spotlight:

SOLAR PHOTOVOLTAICS

Solar PV converts sunlight into electricity.

Benefits of solar PV include:

- Clean, on-site electricity generation
- Reduced energy costs
- Decreased urban heat and pollution
- Increased shade

Learn more at **smartsurfacescoalition.org.**

Smart Surface Spotlight:

GREEN ROOF

Green roofs are vegetative layers on rooftops.

Benefits of green roofs include:

- Less heat transferred into buildings and outdoor air
- Reduced and delayed stormwater runoff
- Improved air quality
- Increased biodiversity

Learn more at **smartsurfacescoalition.org.**

Smart Surface Spotlight:

URBAN MEADOWS

Urban meadows are low-impact, self-sustaining plant communities of grasses and herbaceous flowering plants that can replace vacant lots and turfgrass lawns in urban areas with thriving natural ecosystems.

Benefits of urban meadows include:

- Reduced maintenance costs
- Improved stormwater management and air quality
- Water conservation
- Habitat creation and beauty

Learn more at smartsurfacescoalition.org.

Smart Surface Spotlight:

COOL PAVEMENTS

Cool pavements reflect much more light than conventional dark asphalt.

Benefits of cool pavements include:

- Reduced pavement surface temperature
- Cooler neighborhoods
- Increased pavement lifespan
- Reduced street lighting requirements
- Increased road safety due to improved visibility

Learn more at **smartsurfacescoalition.org.**

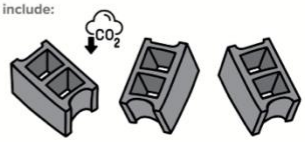
Smart Surface Spotlight:

LOW- AND ZERO-CARBON CONCRETE

The cement industry is responsible for about 8% of global CO_2 emissions. With current and in-development innovations, concrete can be carbon neutral or even carbon negative.

Benefits of low- and zero-carbon concrete include:

- Reduced carbon footprint
- Relatively high albedo, which helps cut local temperatures and slow climate change



Learn more at smartsurfacescoalition.org.

Smart Surface Spotlight:

PUTTING IT ALL TOGETHER:

COMBINED SURFACES

Smart Surfaces are most effective and cost-effective when deployed in combination.

Example: **green roof** + **solar PV**

- Green roofs keep solar panels cooler and thus more efficient.
- Solar shades the green roof, reducing water needs.

Learn more at **smartsurfacescoalition.org.**

Outreach

2024 Annual SCPHA Conference (March 2024)

At the SCPHA Annual 2024 Conference in Myrtle Beach, SC, the Smart Surfaces Team served as exhibitors, highlighting the benefits of smart surfaces for health and the environment. This year's theme was "Synergies of Space and Place: Advancing Public Health Through Non-traditional Partnerships." The team also provided protective gear to address extreme heat, including sunglasses, sunscreen, and mosquito repellant bracelets, for 400 participants.

4th Annual Wave Fest (April 2024)

The 4th Annual Columbia Wave Fest, hosted in Harbison, Richland County, provided valuable insights into the resources available in the City of Columbia for children, youth, and families affected by emotional and behavioral health challenges. This event is structured in alignment with the 8 Dimensions of Wellness, which encompass Emotional, Environmental, Financial, Intellectual, Occupational, Physical, Social, and Spiritual elements. The Smart Surfaces Team served as exhibitors, highlighting the benefits of smart surfaces for health and the environment. The team provided cold water, protective gear, like sunglasses, sunscreen, and mosquito repellant bracelets.

City of Columbia Virtual Call (May 2024)

The City of Columbia Call was an opportunity to meet with our project partners, including the American Public Health Association, The National League of Cities, the City of Columbia, and the Smart Surfaces Coalition, to discuss project updates. During the meeting, the Smart Surfaces Team showcased the progress within the City of Columbia and discussed the project's short-term and long-term goals. The call also explored potential partnerships with local and state Community-Based Organizations (CBOs) and academic institutions to raise awareness about extreme heat. Long-term goals for the project and possible collaborations with local and state CBOs and educational institutions to enhance awareness around extreme heat were also discussed.

SC Energy Justice Coalition Presentation (June 2024)

The Smart Surfaces Team presented to the SC Energy Justice Coalition at their quarterly meeting. This nonpartisan group comprises over 60 organizations across four regions of South Carolina. The Coalition aims to support communities facing high energy burdens, persistent energy inefficiency, and other inequities in the state's energy system. With extreme heat impacting the energy grid, particularly in low-income and marginalized

communities, the guidance and resources provided by the SC Energy Justice Coalition are vital in addressing these concerns.

Beat the Heat – Plant a Tree Campaign (July 2024)

The University of South Carolina and Benedict College have identified high heat levels in urban areas of Columbia that have less tree canopy. In response, the City of Columbia and Columbia Green have launched an initiative to plant 1,750 trees on private property throughout the city. The initiative kicked off in July with a luncheon highlighting the importance of planting trees to combat urban heat islands and extreme heat. During the luncheon, the Smart Surfaces Team provided raffle prizes and outreach materials on smart surface methods such as trees, urban meadows, and rain gardens to help mitigate extreme heat.

Soda City (July 2024)

Columbia's Soda City Market takes place every Saturday and is inspired by European street markets. It is located on the blocks of Main Street and serves as a platform for local vendors to showcase their products, including food, antiques, and crafts. The Smart Surfaces Team actively participated as a vendor at the Soda City market, informing locals and tourists about the advantages of smart surfaces in extreme heat conditions. While gathering community data on attitudes, perspectives, and beliefs about extreme heat and smart surfaces, the team distributed complimentary fans, extreme heat gear, and water to the attendees.

Smart Surfaces Focus Groups

Upon receiving a grant from the American Public Health Association, the South Carolina Public Health Association's Smart Surfaces Team was tasked with mediating Columbia-specific focus groups. These groups were designed to gauge public opinion on extreme heat, smart surfaces, and cooling strategies. A key aspect of these focus groups was the involvement of Community Subject Matter Experts, who played a crucial role in educating the community on extreme heat and smart surfaces interventions. Below, our team explains our main findings, data, and takeaways from these efforts:

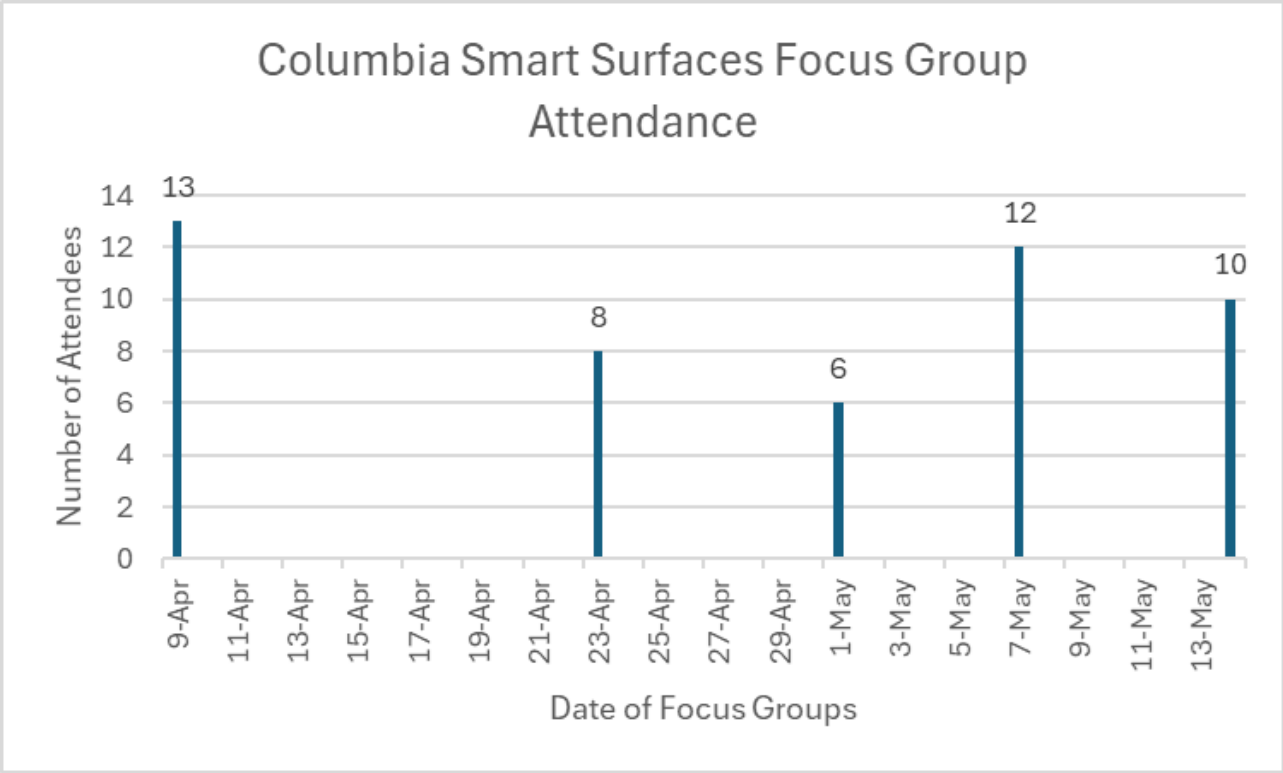
Summary of the Subject Matter Experts (SME)

Professor Kirstin Dow is a faculty member in the University of South Carolina Department of Geography. Dow received her PhD from Clark University in 1996. She is a social-environmental geographer focusing on understanding climate impacts, vulnerability, and adaptation using methods involving extensive participation of stakeholders and decision-makers. Her recent work focuses on supporting adaptation to heat risks, including mapping urban heat islands. “My presentation reviewed the causes of urban heat islands and the findings of a citizen science-based heat mapping effort documenting the variability of heat in the greater Columbia, SC metropolitan area. Temperature differences ranged from approximately 9°F degrees during the morning (6-7 am) and evening (7-8 pm) to almost 18°F during the afternoon (3-4 pm).”

Dr. Kelly Fleming has a background in medicine and environmental health. She is interested in climate change and environmental pollution, and their relationships to specific health impacts, human diseases, and conditions. At the University of South Carolina, she hopes to help her students understand how human influences on the environment ultimately affect public health, and spark interest in the nexus of human health and climate change. “I thoroughly enjoyed presenting to the Smart Surfaces Focus Group and hearing their thoughts as we delved into the health risks of high heat. Topics included identification of people most at risk, parts of the body most affected by high heat, and health conditions or medications that increase risk. We also examined how the body cools itself, steps to take to prevent heat illness, and how to recognize and respond to heat exhaustion and heat stroke.”

Dr. Geoffrey I. Scott received his BS in Biology from Wofford College and his MS and PhD. in Marine Science from the University of South Carolina. Previous research experience includes Aquatic Toxicologist for the U.S. Environmental Protection Agency, Director of Toxicology Program and the Wide-Awake Landing Marine Field Station for Research Planning Institute, Assistant and Associate Tenured Professor at the University of South Carolina's Arnold School of Public Health, and NOAA Center for Coastal Environmental Health and Biomolecular Research. Dr. Scott was the Director of NOAA's CCEHBR from 2001-2014, and formerly the Acting Director for NOAA's Center for Human Health Risk at the Hollings Marine Laboratory from 2009-2011. "Increased extreme high temperatures pose significant health risks to senior citizens and children resulting in heat stroke. Increased temperature also results in increased extreme precipitation events called Large Mesoscale Events in which large often tropical moisture events stream inland dumping record amounts of rainfall in a very short time, such as the record flooding in Columbia and SC during 2015."

Mr. Grant Scheffer has merged his passions for Clean Energy, Education and Farming with the creation of Solar United National and SunAg. His focus is the development of the workforce of the new energy economy and making sure that its positive impacts benefit all communities. He is currently in his last term serving as a board member of the South Carolina Solar Council. Previously, Mr. Scheffer created and ran a curriculum and teacher training company, and as an energy advisor, his work includes, Resiliency, Energy Justice, Community Solar, Grid Modernization, Micro Grid & Charging design and financial analysis, and Lifestyle Charging Infrastructure design. "It was a true pleasure having a conversation with the Smart Surfaces Team about the impact Solar's integration into our living spaces can have. Reducing surface heat on walkways and parking spaces, as well as community and lifestyle accessible charging were amongst the topics addressed."



Summary of Community Input

Heat Concerns: ongoing and future problems of extreme heat

The summers in South Carolina are often described as unbearable, with temperatures over 90°F occurring as early as March. Various heat sources, such as car engines adding to the heat of daily commutes, destruction of green spaces, rapid urbanization adding more heat absorbing surfaces, and greenhouse gas emissions driving temperature changes over decades, have worsened extreme heat throughout the City of Columbia. Many residents use air conditioning (AC) to cope with the heat. Still, some are concerned that running AC units only adds to the emission of greenhouse gases and heat into the atmosphere, thus not effectively addressing the problem of extreme heat. While the metropolitan area of Columbia is extremely hot, rural areas like Hopkins, Gadsden, and Eastover also experience intense heat, mainly due to rapid land clearing. As both the rural area of Lower Richland and the City of Columbia contend with extreme heat, many residents are worried about the long-term effects of extreme heat and climate and whether AC will continue to be a viable solution.

Vulnerability: vulnerable populations affected by heat

The extreme heat in the Columbia area affects everyone, but certain groups are more vulnerable to its adverse effects. The older population, which comprises many of the state's residents, must be cautious, particularly if they have pre-existing health conditions. Children are also at risk due to their smaller mass to surface area ratio and their outdoor activities during extreme temperatures, making them more susceptible to heat exhaustion or heat strokes. Other vulnerable groups include athletes, students in marching bands, homelessness populations, landscapers, agricultural workers, and employees working in places like Chick-fil-A drive-thrus. Additionally, those with fixed or low incomes may need help to maintain proper air conditioning or to make their homes more energy-efficient to cope with extreme heat. It's also important to note that animals and pets are vulnerable to heat, causing burned paws, heat exhaustion and potential death.

Cooling Strategies: coping mechanism to cool down during extreme heat

Residents use various cooling strategies to cope with extreme heat. These strategies include drinking plenty of water, seeking shade near trees, and staying close to bodies of water like lakes, beaches, and pools. Other areas that Columbia residents go to seek cool air are places such as the mall, movies and libraries. Many residents also plan their activities and errands in the morning or evening to avoid the hottest parts of the day. These daily activities might involve exercising, walking pets, or working flexible hours. Additionally, many residents rely on air conditioning and fans to beat the heat on hot days. The US Energy Information Administration confirms that 95% of South Carolina residents use some type of air conditioning system such as central air, window units, ceiling fans, and dehumidifiers.

Heat and Health: heat impacts health

The residents of Columbia are well aware of the impact of extreme heat on health. Many understand that high temperatures can affect sleeping patterns and exacerbate asthma. There is also concern about the potential increase in cardiovascular issues and related hospital visits due to heat. People with pre-existing health conditions are cautious about spending too much time outdoors to prevent heat exhaustion or heat stroke. Older adults, who are particularly mindful of heat, advise young adults to be aware of the health impacts of heat, especially pregnant women. One resident mentioned that excessive heat is linked to preterm births.

Heat and Environment: health impacts the environment

Extreme heat is a concern for residents in Columbia, and it also has adverse effects on the environment. As Columbia grows rapidly with urbanization, residents are concerned about having less access to green space and more asphalt surfaces, especially downtown and around academic campuses. Residents also describe hot weather year-round in Columbia, noting that January to March is the only time to escape the heat. These environmental changes raise concerns for most residents regarding prolonged pollen seasons and changed agricultural practices which jeopardize food production. Residents also expressed concerns about increasing bacteria growth, especially since bacteria thrive under hot and humid conditions.

Energy: heat affects energy burden and cost

Energy costs and burdens are urgent and significant concerns for residents in Columbia. Many residents have noted that South Carolina has some of the highest energy costs in the nation. This is a cause for alarm as the state is rapidly growing its population and urbanization, raising concerns about the energy grid's ability to cope. The energy burden is affecting a large number of citizens in SC, particularly those on a fixed income, lower income, and senior citizens. Some have even had to spend $10,000 - $15,000 to repair their central heating and air systems, leading to severe financial strain. In light of these pressing issues, residents are calling for immediate energy policy implementation, even in small ways, such as more rain gardens, trees, and other smart surfaces to alleviate energy problems.

Resources: who and how can we address extreme heat

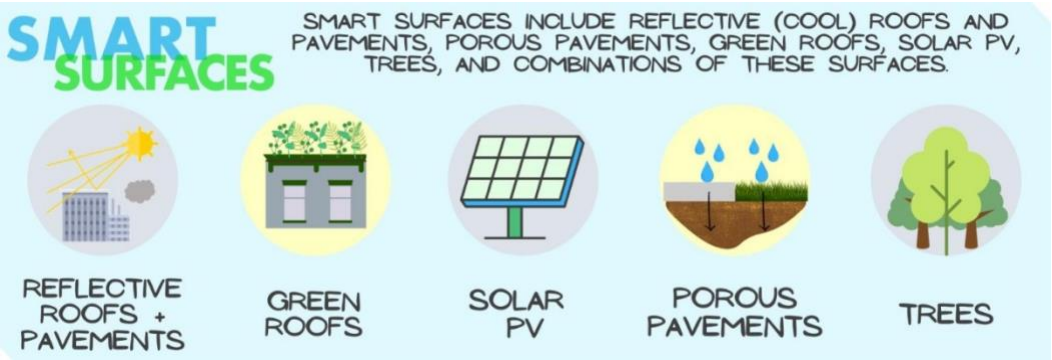
Residents of Columbia have identified several resources to help address extreme heat and temperatures. Many are aware of local resources, such as the City of Columbia, which has initiatives for the built environment, including a tree planting and reforestation program to replace lost trees. Residents also recognize the South Carolina Energy Office as a valuable resource for education, funding, and technical assistance for renewable energy and energy efficiency. Despite the availability of programs and rebates offered by the SC Energy Office and the City of Columbia to address these issues, many individuals need assistance accessing and utilizing these resources. Community Health Workers play a significant role in assisting Columbia communities in navigating resources for residents concerned about energy burdens and the effects of extreme heat.

Lessons Learned

Key Takeaways from Smart Surfaces Focus Groups: Public Input is Vital!

- Energy Burden: Energy burden is a major concern for South Carolina residents. As costs continue to rise, an increasing number of South Carolinians will struggle to grapple with their many expenses. For this reason, it is vital that future energy initiatives are cost-conscious. Smart surfaces, especially tree planting, rain gardens, and porous pavements, should be advertised to the public as inexpensive ways to reduce energy burden and decrease urban heat.

- Smart Surfaces Solutions: Smart surfaces are easy to implement and offer many solutions to the detrimental effects of extreme urban heat. These solutions-- including trees, porous pavements, and green roofs-- are the cornerstone of our efforts, and community members appear to be very open to advocating for such projects if they are cost-conscious and accessible. That being said, some focus group members remain hesitant to implement such technologies for cost or complexity reasons. Many feel there is a lack of conversation around smart surfaces, cooling centers, and energy burden among the public sector, private sector, and lawmakers.



- Lack of Access to Resources: Throughout the focus groups, many residents were able to identify important resources to help with energy burden (including the South Carolina Energy Office) but felt as if it was nearly impossible to apply for them. The websites to apply were not publicized, contacts were not easily accessible, and wording was complex. For this reason, there is a need for mass dissemination of resources to the public in a way that is visible, accessible, and incorporated into daily lifestyle habits. This could include advertising on social media or placing information on resources on flyers in public spaces.

- Public Cooling Centers: The City of Columbia is in need of cooling centers that are dedicated to resiliency, hydration, and proven cooling strategies. These centers must be designated cooling centers, and not merely misting stations. The six misting stations currently in place throughout Columbia could be effectively supplemented with more cooling centers in community centers, parks, greenspace, and cooling structures.

- A Focus on Vulnerable Populations: With Smart Surfaces Initiatives, it is vital that efforts are tailored to target populations and matched to each person's unique needs. Efforts must focus on the people especially at risk for extreme heat complications—specifically children, elderly individuals, pets, and those who spend many hours outdoors (i.e. athletes, firefighters, and construction workers). An additional tool that helps identify communities where people are most likely to feel the effects of heat on their health is the Centers for Disease Control's Heat and Health Tracker. The March of Dimes has also researched the link between heat and preterm births. See the fact sheet provided by The March of Dimes "Extreme heat worsens inequities in maternal and newborn health" for more information.

- Community Networks: Our work is a team effort-- and community networks are extremely vital in implementing Columbia-specific, accessible solutions to our city's diverse population. The City of Columbia holds the authority to implement local governance over Smart Surface initiatives, and community health workers hold great knowledge on the health effects of urban heat. Even more, churches and local media play a key role in educating the masses across the city and state.

- The Role of Homeowners Associations (HOA): HOA Boards are a vital tool for disseminating information to neighborhoods, publicizing neighborhood projects, and implementing neighborhood-specific regulations. For that reason, HOA Board Members' voices are influential in reaching many different neighborhoods in the Columbia area.

- A Need for Public Spokespeople: Upon hearing numerous recommendations from focus group members, our team hopes to increase public participation through social media. In doing so, there is a need for prominent influencers throughout the city and state to speak on the issue, share their stories, and promote smart surfaces.

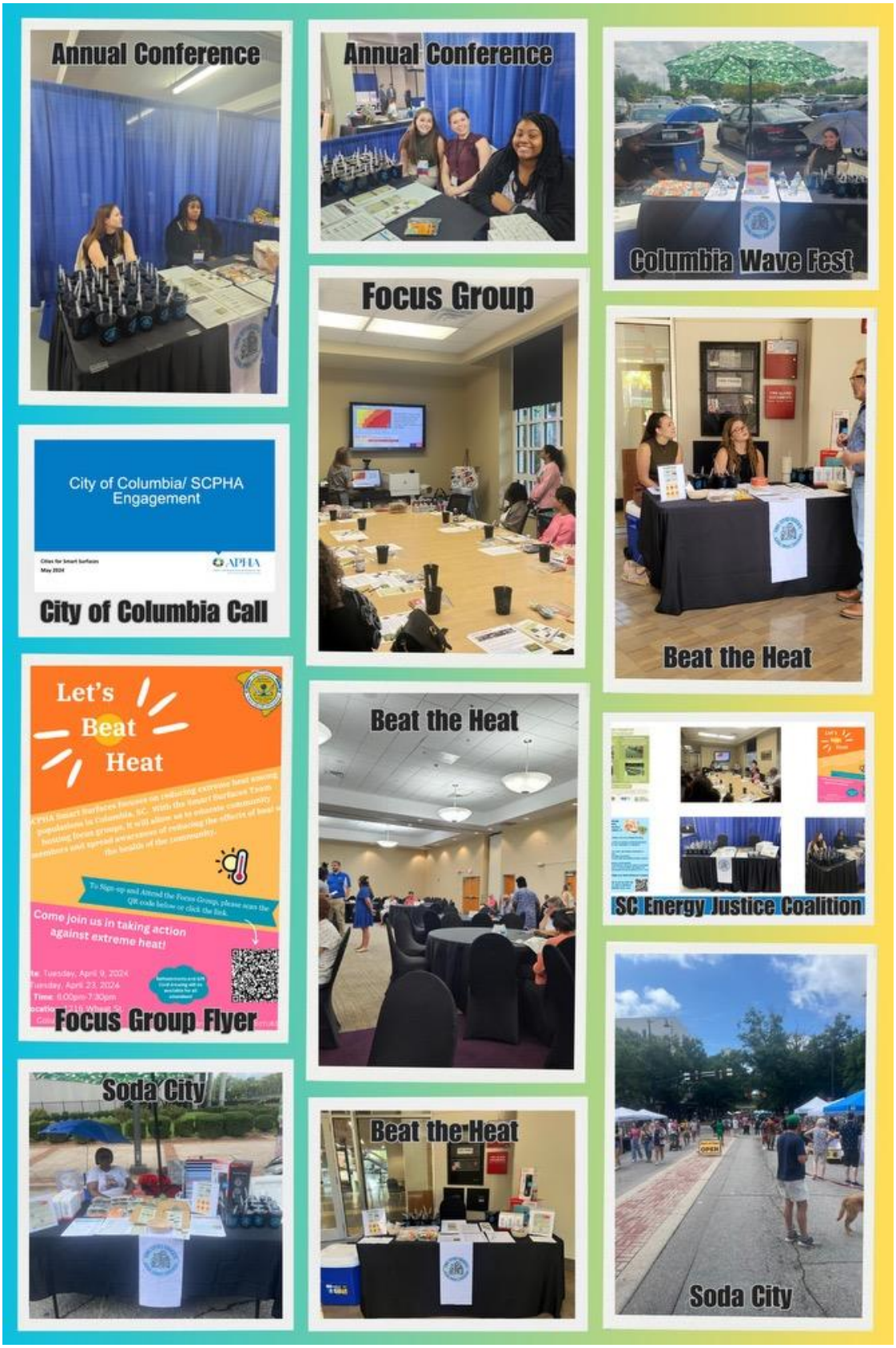
- Q&A and Immediate Next Steps (checklist): Upon completion of the focus groups, members were sent a survey to gauge their opinions on its success. In doing so, many members expressed the opinion that there should be follow-up emails, more questions centered on what specific smart surfaces were best to implement, and more tailored presentations on how climate change, health, and technologies can intersect.

Action Items for Smart Surfaces

- As our focus groups have concluded, our team aims to continue its work through numerous other projects.
  - To begin, our team will present its information via a smart surfaces webinar to the public in a presentation and Q&A format. In doing so, this webinar will be posted online for any public members to view (if they cannot join live), in the interest of increasing accessibility to this vital information.
  - Similarly, our team will create 2-minute clips using SME focus group audio to post on YouTube and other social media platforms. These clips will act as teasers/trailers for those interested in hearing the entire audio of our focus group recordings online.
  - Following such actions, we plan to recruit Smart Surfaces Champions to speak on our behalf and to promote public awareness of this issue. These individuals will act as "influencers" to increase grassroots participation in smart surfaces efforts. Examples of these individuals include Dawn Staley (head coach of the South Carolina Gamecocks Women's Basketball Team), Shane Beamer (head football coach of the South Carolina Gamecocks), and other athletes from the University of South Carolina. These individuals are well-known in the area and well-versed in heat-related issues, especially as they train outdoors throughout the city.

- In addition, the Smart Surfaces Initiative will follow APHA recommendations for dissemination of information across various formats, including websites, story maps, op-eds, and social media posts. More information can be found below:
  - **Websites:** Information and findings from focus groups will be published on the SCPHA website to increase accessibility and visibility.
  - **Story Maps:** Story maps will be shared to visually present focus group narratives in a way that is engaging and easily understandable.

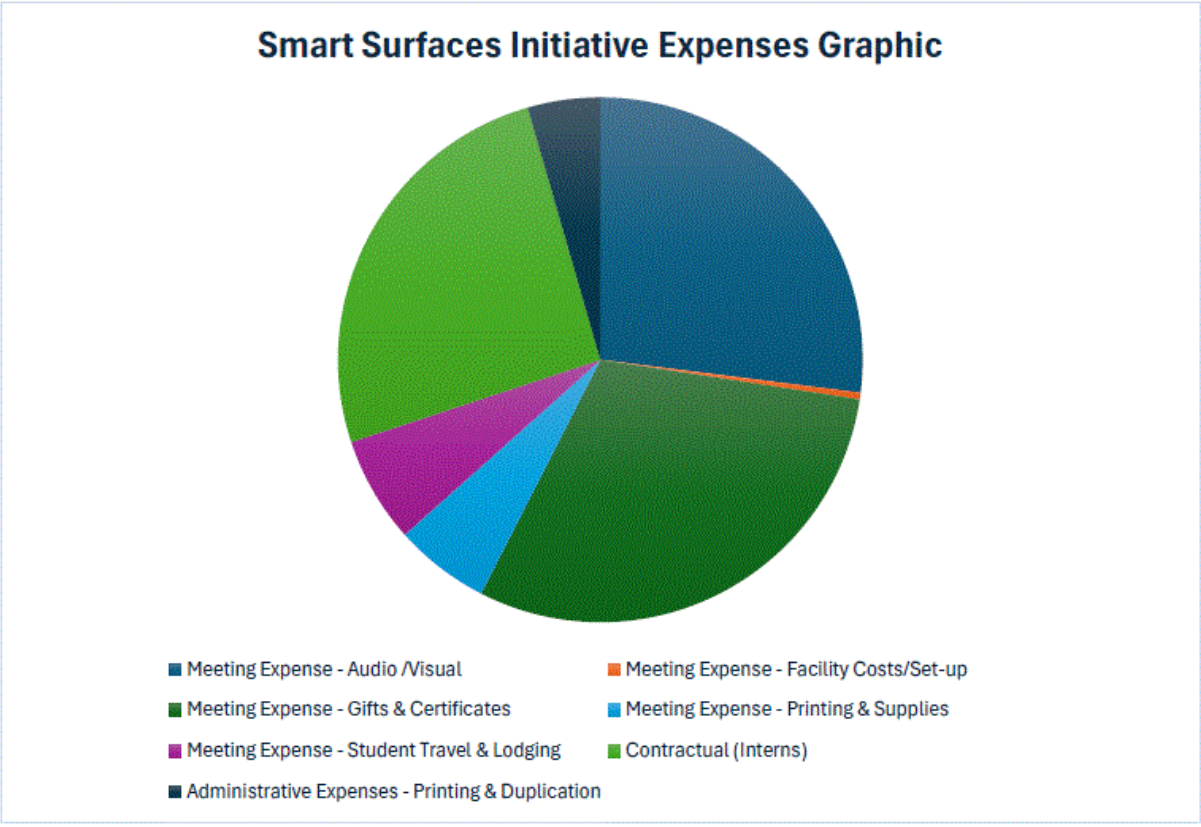
- **Op-Eds:** The Smart Surfaces Initiative aims to write opinion pieces for newspapers and online platforms to share our insights and major findings regarding urban heat—especially during the summer months.
- **Policy Briefs/Reports:** The Smart Surfaces Team will consolidate its findings into a comprehensive report focused on the needs and concerns of focus group participants. This report includes actionable recommendations to continue our efforts and will be presented to other prominent organizations.
- **Social media and Posts:** The Smart Surfaces Team will publicize information across social media platforms through the SCPHA's Instagram, Facebook, and LinkedIn pages. In doing so, the SCPHA Smart Surfaces Team will engage with a larger audience of public health individuals.
- **Local Advocacy:** Local advocacy is essential for addressing environmental justice and energy insecurity. Low-income communities are often overlooked in discussions about environmental impact, energy savings, and city planning. Thus, the SCPHA Smart Surfaces Team will table at local events to answer questions, provide information, and engage with Columbia residents affected by urban heat. Specifically, the team will have a table at Soda City during Extreme Heat Awareness Month and will actively participate in the Columbia Beat the Heat tree kickoff. At these events, the SCPHA Smart Surfaces Team will survey Columbia residents on their experiences with extreme heat, provide information on smart surfaces, and answer questions from the public.


Annual Conference
Annual Conference
Columbia Wave Fest
Focus Group
City of Columbia/ SCPHA Engagement
City of Columbia Call
Beat the Heat
Let's Beat Heat
Beat the Heat
SC Energy Justice Coalition
Come join us in taking action against extreme heat!
Focus Group Flyer
Soda City
Beat the Heat
Soda City

Information on the Budget and Expenses

The Smart Surfaces Initiative has invested a total of $7,404.27 as of June 10, 2024. Expenditures include gift certificates and promotional items for the focus groups and other outreach events; expenses related to the SCPHA conference; printing and transcription fees; and contractual personnel costs.

Expense Category	Category ID	Expense
Meeting Expense - Audio /Visual	5125	$ 2,000.00
Meeting Expense - Facility Costs/Set-up	5130	$ 30.00
Meeting Expense - Gifts & Certificates	5140	$ 2,229.12
Meeting Expense - Printing & Supplies	5145	$ 434.96
Meeting Expense - Student Travel & Lodging	5165	$ 483.64
Contractual (Interns)	5200	$ 1,896.00
Administrative Expenses - Printing & Duplication	5310	$ 330.55
		$ 7,404.27



Expenses as of January 1 – June 10, 2024

Acknowledgements

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An extra, special thank you to our SCPHA Smart Surfaces Team. This initiative would not be possible without your dedication!
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Viya Patel, SCPHA Smart Surfaces Intern
Kathryn 'Katie' Schreiber, SCPHA Smart Surfaces Intern