I would like to thank Rep.Payne, Rep. Paulson, and the members of the Congressional Black Caucus for their advocacy in bringing us to this panel today to discuss the important topic of peripheral artery disease (PAD) and to discuss the disturbing practice occurring in our communities of performing limb amputations on patients for whom a vascular evaluation could salvage their limbs. Peripheral arterial disease claims lives and livelihoods. The citizens in your districts who have been affected by PAD -related amputations suffer in isolation, isolated by the physical and financial pain this silent disease inflicts on them and their families. Your advocacy on this important issue is deeply appreciated.

I am privileged to represent the Association of Black Cardiologists (ABC) whose mission is to promote the prevention and treatment of cardiovascular disease in ALL minorities and to achieve health equity for all through the implementation of processes that eliminate disparities. "Of all the forms of inequality, injustice in health care is the most shocking and inhumane" - wise words from Dr Martin Luther King Jr.

We are here to talk about the most prevalent, debilitating, costly, and deadly pandemic that most people in America have never heard of – Peripheral artery disease (PAD) (Slide 1). Race, income, insurance status, first point of medical contact, geographical location, and modifiable diseases all determine if you live or die. They also determine if you get your limbs amputated. Many PAD-related amputations are preventable if aggressively screened. The virulent practice of unnecessary amputations disproportionately affects patients located on this map (Slide 2). Majority of these patients are Medicare and Medicaid recipients who could have been productive in the workforce if screened earlier to salvage their limbs. If they are caught in time, and referred in time, they can benefit from what we call a peripheral vascular intervention. This involves a vascular specialist performing an angiogram to assess the blood flow to the limb; identifying vessels narrowed by plaque and restoring blood flow to the limb by special techniques. If blood flow is restored and a wound is given time to heal, amputation is prevented. This procedure usually takes 90 minutes and ideally is performed as an outpatient procedure due to its cost benefits. Timely referral for an angiogram AND intervention reduces the probability of an amputation by 90%. Over 90% of the amputees that I have encountered

in Mississippi have never had an angiogram or an appropriate vascular evaluation to salvage their limb before their amputations.

Mississippi is the epicenter for PAD, amputations and all other cardiovascular diseases, and it has had the lowest reduction in the probability of dying from cardiovascular disease during the period 1990-2016. Mississippi also has the lowest number of physicians per capita and it is the poorest state, with an annual household income of 36,900/year. Other heavily burdened areas include West Virginia, Alabama, Kentucky, Louisiana, Arkansas, Oklahoma, Tennessee, New Mexico and Georgia.

I moved to the Mississippi delta to establish my practice 3.5 years ago and have since collaborated with ABC and industry partners to be a voice to crack the stagnation on this topic that spans decades.

I want to introduce you to two courageous women who humanize our mission here today. They have been friends since age 7 with mutual admiration for one another, never missing weekly phone calls, birthdays, thanksgivings, or Christmas dinners. Both ladies are PAD survivors that have lent their voices to help raise awareness of this pandemic based on their vastly different outcomes.

Accompanying me on this trip to DC today is Mrs. Gertrude Campbell – My SHE-RO whom I met for the first time in my office in March of this year. (Slides 4). Gertrude lives in Greenville, MS, Rep Bennie Thompson's district. She was the first female African-American hired at the Greenville Post Office, and the first African American postmaster in Starkville, MS. She retired after the loss of her left leg at age 72.

Her **diabetes was recognized at age 52, in 1994. Atypical PAD symptoms in the left leg began in 2013. Her physicians managed her diabetes as best as they could, but she was not screened for PAD. She progressed to "critical limb ischemia" (the end-stage of PAD) in 2015 and her left leg was amputated after she presented with an infection (sepsis).** After the loss of her left leg, she began having problems with her right leg. A wound on the right leg was managed by a wound care clinic for 3 years while she progressed to end stage disease, unknown to her. On her first visit to my office in March 2018, she came with the hope

that I could restore the blood flow to her left leg stump because the skin flap had never healed and this precluded her from using prosthesis – a common problem seen with amputees. On exam, I asked her to take off her right sock and I saw her blackened toes and later cried (Slide 5). Within 48 hours, I took her to the lab in an attempt to salvage her limb but she had very poor outflow below the knees and thus, was not salvageable. She presented weeks later with progressive symptoms and had an amputation. I walked into the room the day after her procedure and saw a "get well flower" given to her by her surgeon who performed the amputation. She spent the next 90 days in a rehab facility 2 hours away from home, away from family where she ate a turkey sandwich for lunch and dinner during her entire 90 day stay, then finally went home to begin her life as a bilateral amputee. She still frequently cooks for her best friend Gwendolyn and when I asked her to tell me her hobbies for this bio today, she wrote to me "My favorite hobby is something I can no longer do with legs (dancing). I do chair dancing now."

I also present Mrs. Gwendolyn Hughes, her best friend of over 60 years. She is a military wife who served as a technician for officers at the Hoffman building in Virginia for 18 years. Her husband, who valiantly served our country for 40 years, had to quit his job to be her fulltime primary caretaker after she suffered a stroke in 2002. She has a history of diabetes, hypertension, and heart disease. She had unrecognized debilitating PAD that left her wheel chair bound with no PAD screening. We captured her PAD diagnosis during our routine screening campaign (Slide 6) by detecting diminished pulses on physical exam. She was considered asymptomatic. We performed an angiogram, she was successfully revascularized (Slide 7) and she stood up in my office 2 weeks later dancing (Slide 8).

For those patients who are undiagnosed, the outcomes are starkly different. As you can imagine, most amputees will require life-long caregiving assistance for the tasks of daily life. The inability of family caregivers to work results in lost wages and benefits, estimated at $300,000 per year. In addition to this burden, there are unreimbursed costs for patients and their families with annual medical and nonmedical expenditures estimated at $150,000 in 2015. Many patients require over 100 days of nursing care- Medicare only covers 100 days. Lifetime costs are estimated at nearly $800,000. The cost of unnecessary amputations is a financial burden on our healthcare system. It is a burden on our workforce. And, if you consider the ripple effect of each amputation on family members and communities, it is a financial burden to our economy as well. We are caught in an inescapable network of mutuality when it comes to this disease

burden. As we have come to understand with many other disease burden from HIV to drug addiction, whatever affects one directly, affects all indirectly.

How can a Mississippian with a median household income of $36,900 afford the evils of amputation? (Slide 3). Majority of amputees are not discharged home after amputation, they cannot ambulate and require discharge to a skilled nursing facility. Medicaid does NOT cover prostheses. The in-hospital death rate for patients who undergo amputation is among the 5 highest for all surgical procedures. Most amputees spend lengthy periods in a nursing home. They account for recurrent emergency room visits. Half of them are dead within 2 years of amputation (assuming they survive hospitalization). Over 50% of those who survive their first amputation will have the other limb amputated within 5 years. After losing a limb, patients suffer from multiple complications, lack of healing at the stump, depression, chronic pain, lost productivity, and lost wages for themselves and their family members. It's a heavy emotional burden, a heavy economic burden and it is PREVENTABLE.

As a limb salvage specialist, I moved to the Mississippi delta 3 1/2 years ago, with no institutional support, no financial support and with no multi-disciplinary team in my immediate geographic vicinity, and we were still able to decrease amputation rates in a focal region of the Mississippi delta by 87.5% over the last 3.5 years. In the year prior to my arrival, the hospital that I currently service performed 56 major amputations and zero angiograms. Last year, that same institution performed 7 amputations and almost 500 angiograms (Slide 9).

How did we accomplish this as a solo private practice? We assembled a great team of individuals who comprehensively treated every one of our 10,000 patients as family members. We did this using aggressive early screening, diagnosis and treatment of modifiable cardiovascular risk factors in patients who are at-risk, and advocating for angiograms before amputations. We engendered the trust of the patients by exemplifying technical and interpersonal competence, which facilitates care-seeking behavior by patients and increases adherence to office visits and medication compliance. We promoted patient medical literacy and advocacy via a faith based approach – building community navigators, educating the community about PAD and stressing the importance of prevention over cure. We also recognized the social determinants of health and

discussed solutions with stakeholders on local and state levels. These results can be realized elsewhere. Taking this as an example that amputation reduction is possible, we realize the need to publish research and to develop real-world treatment algorithms to effect change in other underserved communities.

The time is now. As my colleague mentioned, the diabetic population is increasing. Obesity and diabetes will expand the burden of PAD on our economy for generations to come. Only 20-30% of patients with PAD are being treated. The Data from the Centers for Disease Control (CDC) suggests that two-thirds of people with PAD have no symptoms, and a quarter of patients with PAD have severe PAD. We can use aggressive screening, diagnosis and PAD- treatment algorithms, similar to what we used in the Mississippi delta to impact other underserved communities. Just as the systems in our body work in harmony, so too should our healthcare system, our government and our schools, churches and community organizations work to effect this change.

In closing, the evil of unnecessary amputation lies in the failure to perform early screening, failure to provide early treatment of at-risk patients, and the lack of a multidisciplinary approach, and I believe the practice of unnecessary amputations must be dis-incentivized and must be publicized. We ask for a broad implementation of policies that will incentivize physicians to offer patients a chance of limb salvage before amputation, that is, “no amputation without vascular evaluation". We ask for policies that raise awareness of this pandemic. And, we ask that the US Preventive Services Task Force adopt a screening protocol for at-risk patients that are effective in reducing amputation rates. We already have the techniques to save limbs. Where we need your help is to create policies that create a path for Medicare and Medicaid recipients to actually reach a vascular specialist in time to benefit from these techniques. I believe that with thoughtful collaboration, this can be accomplished in a cost effective manner, and we can thwart the enormous financial costs to Medicare and Medicaid and the emotional costs to Americans.

On behalf of all underserved communities, we thank you for the privilege of this invitation and look forward to policy action.