

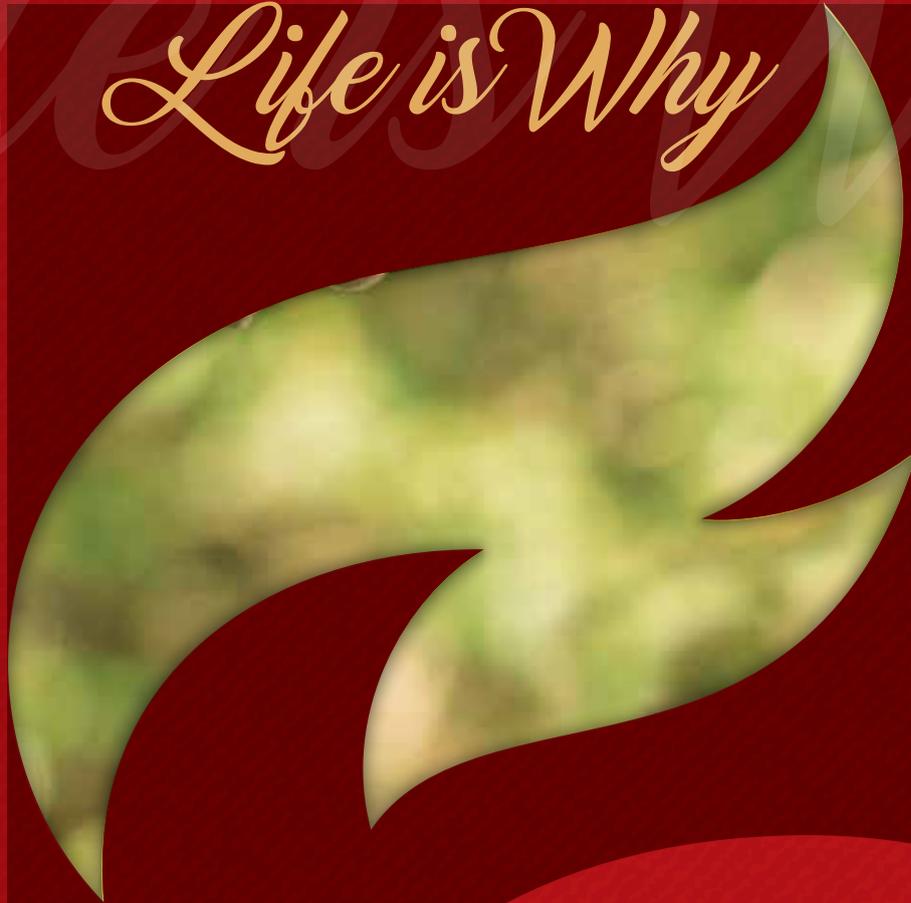


American
Heart
Association

American
Stroke
Association®

life is why™

Life is Why



A SPECIAL REPORT PREPARED BY

the American Heart Association

NOVEMBER 2016

*“It is my privilege to thank you,
the extraordinary individuals who are making a real
difference in the lives of all Americans with your support
of our mission. Your dedication inspires all of us in the work
we do each day to improve the prevention and treatment of
cardiovascular diseases and stroke.”*

*- American Heart Association
CEO Nancy Brown*



Life is Why

Life is Why is not simply a catch phrase for the American Heart Association. To achieve our mission of building healthier lives free of cardiovascular diseases and stroke, the AHA must continue to explore new and brave ideas.

Ever evolving.

That is the American Heart Association and the American Stroke Association. Back in 1924, when heart disease was considered a death sentence, the organization was formed to find new ways to treat it. Over the years, our research and treatment discoveries have contributed to a significant reduction in deaths from heart disease and stroke.

In 2010, Life's Simple 7 was introduced as a group of measures and behaviors that can help people understand and strive for ideal heart health. When these seven metrics of health are in place, the likelihood of heart disease or stroke dramatically decreases.

Today, we are increasingly focused on saving lives through prevention and leveraging the possibilities of individualized health through our newly created Institute for Precision Cardiovascular Medicine.

Ever impactful.

Consider this: A person in 2014 was more than 50 percent less likely to die from a heart attack than a person in 1985. While we have made tremendous strides in saving lives, the association now is poised to immeasurably accelerate the time it takes for discoveries in the lab to impact patients, particularly in the area of personalized medicine.

Ever enduring.

More than 300 million Americans and millions more around the globe can realize a potential world where life expectancies are extended, people are more active and fit, communities grow stronger and healthier, and heart disease and stroke can be prevented. We won't stop working until we achieve this vision.

This report highlights some exciting approaches that are expanding the association's efforts to save and improve lives in every community, thanks to the extraordinary generosity of you and other donors. Contributions of all sizes — from donations children raise through Jump Rope For Heart to transformative gifts from individuals, foundations and corporations — allow the AHA to lead the way in the treatment and prevention of heart disease and stroke.

A scientist in a white lab coat and safety goggles is working in a laboratory. The scientist is holding a test tube with a wooden clothespin. In the foreground, there is a glass flask containing a yellow liquid. The background is a blurred laboratory setting with various pieces of equipment.

*Accelerating
Science
is Why*

Accelerating Science

Many major scientific advancements in the fight against cardiovascular diseases and stroke started with a grant from the American Heart Association. Thanks to our generous supporters, the AHA has funded more heart and stroke research than any organization outside the federal government. And while we continue our time-honored research program that has funded 13 Nobel Prize winners, many important breakthroughs and early career researchers, the AHA is also looking toward the future. We're seeking to modernize delivery of care, redefine patients' participation in their own care, and develop new partnerships in health and technology. The American Heart Association's science acceleration strategies are the next step in identifying innovative opportunities to save and improve lives.

CENTER FOR HEALTH TECHNOLOGY AND INNOVATION

The newly formed Center for Health Technology and Innovation builds on the association's success over the past several years to expand lines of business while creating a deeper focus in the health-technology space to benefit patient outcomes. Specific areas include developments in medical technology, digital health, connected health, remote health and wellness monitoring.

The center focuses on applying technology solutions to health care in ways that can improve outcomes, lower costs, and increase engagement between patients, families and doctors. Examples of engagement may include patients and their loved ones using AHA's evidence-based care plans via smartphone apps to better manage post-acute conditions such as heart failure; tracking vital statistics and sending health data electronically to healthcare professionals for monitoring or treatment options for preventive care; and interacting with a tablet-based cognitive rehabilitation tool developed with AHA scientific content.

One of the center's early priorities is the Health Technology Collaborative, which will bring together health-tech innovators, investors and thought leaders seeking to address hypertension, heart failure, atrial fibrillation and other serious health problems. Members of the collaborative will share insights and research, as well as develop studies and interventions aligned with AHA science to focus on health outcomes.



Eduardo Sanchez, M.D., MPH, AHA chief medical officer for prevention, chief of the Center for Health Metrics and Evaluation, and Nancy Brown, CEO, speak at the 2014 Health Tech Forum.

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Introducing

THE CHIEF OF THE INSTITUTE FOR PRECISION CARDIOVASCULAR MEDICINE



Jennifer Hall, Ph.D., FAHA,
FACC

Although Dr. Hall has only been the Chief of the Institute for Precision Cardiovascular Medicine for a brief time, she's hit the ground running.

In addition to managing an energetic staff, Dr. Hall is responsible for delivering on three defined goals in the short term.

The first, set to launch this fall, is to create the AHA Precision Medicine Platform. The AHA will take the lead in creating a one-stop shop of research information and analytics that can be accessed by academic institutions, industry, healthcare systems and government. The platform eliminates the cumbersome task of searching various sources for information, which often delays the progress of researchers.

The second goal is to help answer the biggest questions patients and their caregivers have about their health. That's happening through a collaboration with the Patient-Centered Outcomes Research Institute, an independent nonprofit. The AHA and PCORI are working together to find these questions in a study called Precision Medicine Advances using Nationally Crowdsourced Comparative Effectiveness Research.

"The AHA is excited to work with PCORI to help us better understand the needs of patients and their caregivers using a crowdsourcing approach," said Dr. Hall.

The third goal is to develop a Patient Powered Research Network. Through this network, the Institute will communicate with and educate people about the issues and questions involved in donating their data for research purposes. The network will establish programs to teach people how to improve their health using new and exciting technologies. Amid these ambitious goals, Dr. Hall is grateful for the opportunity to lead the Institute.

"This position means a lot to me personally," she says. "I've been a volunteer with the AHA for 16 years, and received my first grant from the AHA. I couldn't be happier to be working alongside such terrific mentors and friends in an area about which I am so passionate."

AHA INSTITUTE FOR PRECISION CARDIOVASCULAR MEDICINE

We sit on the precipice of transformational change in cardiovascular care. Significant advances in our understanding of the human genome have illuminated important mechanisms of various diseases and identified new treatments. It is through this more precise medicine – taking into account a person's genes, environment and lifestyle – that revolutionary advances are currently being realized in diseases such as cancer and cystic fibrosis. As the biggest contributor to cardiovascular research outside of the federal government, the American Heart Association is leading the effort to develop more precise cardiovascular medicine to prevent, treat and care for patients.

The AHA Institute for Precision Cardiovascular Medicine is designed to accelerate the discovery of more personalized treatments and prevention. The Institute convenes thought leaders from academia, government, companies, patient advocacy groups and the world of scientific research. These leaders gather, link and learn from existing scientific research data and health information to understand why individuals respond differently to treatments, and to help guide better options. Over the past two years, the association has funded 20



researchers in this area for a total of nearly \$10 million, with additional grants being offered each year.

One of the recipients, Donna Arnett, Ph.D., MSPH, dean of the University of Kentucky College of Public Health and past president of the AHA, is studying how genetic factors influence blood pressure and heart structure in African-Americans. Dr. Arnett was one of the first funded researchers of the Institute.

"At this point in time, we're on the cusp of truly revolutionizing the prevention and treatment of cardiovascular diseases and stroke," said Dr. Arnett. "The area of precision medicine, which can use the genetic profile of an individual to better understand how drugs, treatment or diet could be targeted to lead to better health and cardiovascular options, is within our grasp."

"We still have a lot of work to do to get us there," she added. "We have the technology in place, and now we need to study large groups of people to translate that knowledge into critical practice."



Verily CEO Andrew Conrad, Ph.D., and AHA CEO Nancy Brown announce One Brave Idea at 2015 Scientific Sessions.

ONE BRAVE IDEA

One bold idea. The potential to change science as we know it and save millions of lives each year. That's the concept behind One Brave Idea, a collaboration between the American Heart Association, Verily (formerly Google Life Sciences) and AstraZeneca. The three organizations have each committed \$25 million over five years to find a cure for coronary heart disease. The funds will support

This innovative approach to research blends technical, scientific and medical resources to discover what factors make someone at risk for cardiovascular disease, and how different kinds of disease impact the body in different ways. By examining predisposition for heart disease, we can identify who is most at risk and get them treatment before a heart event occurs.

“Working together with Verily and AstraZeneca, we intend to change the way cardiovascular research is conducted.”

- AHA CEO Nancy Brown

a single research team that will seek novel strategies for solving one of the leading causes of death in the world.

“Working together with Verily and AstraZeneca, we intend to change the way cardiovascular research is conducted,” said AHA CEO Nancy Brown. “This is our moonshot — it’s an unprecedented opportunity for the world’s best and brightest to address a leading health threat.”

The winning team was announced in October, led by Dr. Calum MacRae, Chief of Cardiovascular Medicine at Brigham and Women’s Hospital in Boston. In addition to massive funding support, the team will also receive medical, technical, clinical research, engineering and data analysis support from the three granting organizations.



Research is

Nadia LuQman was born with a congenital heart defect. She is now happy, healthy and looking forward to the future.

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Why



Each year, thousands of AHA volunteers knit red caps for babies born in February to raise awareness about congenital heart defects.

IMPROVING CHILDREN'S HEALTH

Nadia LuQman was born with a congenital heart defect in 1998. Back then, the surgery that repaired the holes in her heart and removed her non-functioning pulmonary valve was new. Fortunately, it was successful. But that was just the beginning of Nadia's journey.

Like many born with a congenital heart defect, Nadia would require several surgeries. She had balloon angioplasty at age 7 to open a narrowed heart artery and a pulmonary valve transplant at age 12. She may need valve replacement surgery in the future.

Today, a simple pulse oximetry screening detects heart defects before newborns leave the hospital. This test measures blood oxygen levels and heart rate and can detect seven defects that could go unnoticed and lead to death if untreated. For approximately 40,000 babies born each year with congenital heart defects in the United States, this early detection is crucial.

Thanks to the association's advocacy efforts, pulse oximetry screenings or guidelines to detect congenital heart defects are now required in 45 states, including Nadia's home state of Washington. Nadia helped lobby for this legislation last year. Since July 2015, Hawaii, Maine, Georgia and the District of Columbia were added to that list, ensuring lifesaving screenings for nearly 170,000 more babies each year.

Pulse oximetry screening is an important tool. Scientific research is also vital to help us understand the causes and seek ways to reduce the occurrence of congenital heart defects. In order to do this, the AHA has partnered with

THINKING OUTSIDE THE BOX AWARD

The inaugural Bugher-American Heart Association Dan Adams Thinking Outside the Box Award was presented in February to Dr. James Weyhenmeyer, vice president for Research and Economic Development at Georgia State University.

The American Heart Association and the Henrietta B. and Frederick H. Bugher Foundation created the award in honor of Adams, a longtime friend of the AHA and champion of stroke research. Adams, for many years a trustee with the Bugher Foundation, passed away in 2015. His innovative thinking led to the introduction of a new concept, cross-institutional collaboration, allowing researchers at different universities to tackle a single issue as a team.

Dr. Weyhenmeyer is a longtime AHA volunteer and chairs the Oversight Advisory Group guiding the Bugher-funded Strategically Focused Research Network: The ASA-Bugher Centers of Excellence in Stroke. Together, the Bugher Foundation trustees and Dr. Weyhenmeyer will select one recipient to receive a portion of the \$675,000 award to be used to advance an innovative research project. The remaining funds will be awarded to additional researchers.

Funding research in the name of Adams is a perfect honor, said his sons, who also are trustees with the foundation.

“Our father had a talent for looking at problems through a different lens and brought his whole skill set to the task of serving our mission as well as the mission of our AHA family,” said Bryan Adams.

“In honor of him and his unique approach to funding worthy research, this award recognizes truly extraordinary people who live at the intersection of genius and humility,” added Bruce Adams.

The Children's Heart Foundation, committing \$22.5 million to congenital heart defect research through 2021. The initial \$800,000 investment was awarded in January for seven research projects.

“This new research will help bring innovative solutions to congenital heart defect survival rates and care,” said William Foley, executive director of The Children's Heart Foundation.

This is good news for those living with congenital heart defects like Nadia. But Nadia's condition hasn't slowed her down. In addition to interning for the AHA for the past four years, she graduated from high school and plans to attend Seattle University, majoring in business administration and nonprofit leadership.

STRATEGICALLY FOCUSED RESEARCH NETWORKS

Since 2014, the AHA has awarded approximately \$75 million to five Strategically Focused Research Networks. Each network brings together four different institutions to focus on one research topic. Research areas are selected by the AHA Board of Directors based on alignment with the AHA's mission and because they will help make significant progress on the organization's 2020 Impact Goal: to improve the cardiovascular health of all Americans by 20 percent while reducing deaths from cardiovascular diseases and stroke by 20 percent. Current focus areas of the research networks are prevention, hypertension, disparities in cardiovascular disease and stroke, Go Red For Women and heart failure.

In March 2016, more than 200 researchers working in the hypertension, prevention and disparities networks came together for an annual meeting. While this meeting typically occurs with one network at a time, the investigators of all these networks had a unique opportunity to collaborate and share discoveries within a broader, informal network.

The association has announced its next two research networks, focusing on obesity and children, which will launch in 2017. These networks are an extension of the AHA's commitment to research focused on children's health and obesity as they relate to cardiovascular diseases and stroke.



“It’s important to us that my wife and I support the lifesaving mission of the AHA, both today and by creating a charitable remainder trust to benefit future generations – because this is an organization that truly makes a difference in people’s lives.”

*- Dave Schlotterbeck of Laguna Niguel, California,
discussing why he and his wife Genell support the AHA*



Healthy

Building Healthier Communities is Why

ENCOURAGING HEART HEALTH IN THE WORKPLACE

There are about 159 million working adults in the U.S. who spend an average of nearly nine hours a day at work, according to the Bureau of Labor Statistics. And when employees are sick and less productive on the job, it costs the employer. Specifically, \$1,685 per employee, per year, in productivity losses, according to 2015 statistics from the National Center for Chronic Disease Prevention and Health Promotion.

Moreover, four out of 10 of the costliest health conditions for employers are related to heart disease and stroke: high blood pressure, heart attack, diabetes and chest pain. One study concluded that the combined presence of risk factors for heart disease as outlined in the AHA's Life's Simple 7 can increase employer medical costs by an estimated 200 percent.

As part of our commitment to improve the cardiovascular health of all Americans, the AHA launched Workplace Health Solutions, a continuous quality improvement

program for workplace health. Workplace Health Solutions harnesses the scientific expertise of the AHA and metrics from Life's Simple 7 to promote evidence-based guidelines and practices for a healthy work environment.

Workplace Health Solutions offers evidence- and science-based digital tools, resources, and services to maximize employers' workplace health programs. Employers can assess the comprehensiveness of their wellness programs, discover where gaps exist, consult expert resources on strategies for improvement, implement programs that engage employees, track progress toward ideal heart health and receive recognition for their achievement.

At the core of the solution is AHA's My Life Check, an online employee cardiovascular health assessment tool that uses Life's Simple 7 and AHA's Workplace Health Achievement Index. The index is a free organizational self-assessment tool for employers to gauge their companies' overall wellness based on industry standards. The Index helps employers identify wellness gaps and guides them

LIFE'S SIMPLE 7:



Stop Smoking



Eat Better



Get Active



Lose Weight



Manage Blood Pressure



Control Cholesterol



Reduce Blood Sugar

Building Healthier Communities

on areas where they can make improvements. Examples include making healthier foods available in cafeterias and vending machines, providing safe and accessible routes to encourage walking meetings, creating a smoke-free environment, and training employees in CPR.

Partnering with the AHA on the further development of these tools is Welltok, a technology company committed to creating a healthier workforce and stronger communities.

My Life Check will be combined with Welltok's health optimization platform to deliver engaging and personalized health strategies to employees, which could include a smoking cessation program, a weight management program or healthy recipes. A mobile version of this platform will be available in early 2017.

AHA is also exploring collaborations with technology companies that have data analytics capabilities to link these tools. Data insights will help employers understand which employee health programs are most effective in reducing healthcare costs, or where employers need to focus their spending for maximizing improved health outcomes.

"With Life's Simple 7 and the Workplace Health Achievement Index, we've presented a science-based blueprint for healthy living and corporate well-being," said Eduardo Sanchez, M.D., MPH, chief medical officer for Prevention, chief of the Center for Health Metrics and Evaluation at the American Heart Association. "Our hope is that we can set a new standard for continuous quality improvement in workplace health."

UNDERSTANDING HOW OUR COMMUNITIES IMPACT HEALTH

Does where you live impact your well-being? Yes, according to a review of research studies published by the AHA in 2015. Your community is just one factor of the social determinants of health, defined by the World

Health Organization as "the circumstances in which people are born, grow, live, work, and age, and the systems put into place to deal with illness." Other social factors that influence health and outcomes of cardiovascular diseases are socioeconomic position, race, ethnicity, social support, culture, language and access to care.

The illustration on the following page shows the shocking difference a few miles can make in life expectancy. Quite simply, your neighborhood dictates whether you have access to fresh food. It determines how close you are to a doctor's office or a pharmacy and if there are safe places for children to play outside for exercise. Not all neighborhoods have access to public transit, safe sidewalks or even clean drinking water.

According to recent studies, these factors have a direct correlation to cardiovascular diseases. In fact, lower socioeconomic status in the U.S. is associated with a greater prevalence of cardiovascular disease risk factors and a higher incidence of death from cardiovascular diseases. Failure to address the social determinants of health will result in a growing burden of cardiovascular diseases, especially for people who do not have access to a healthcare system.

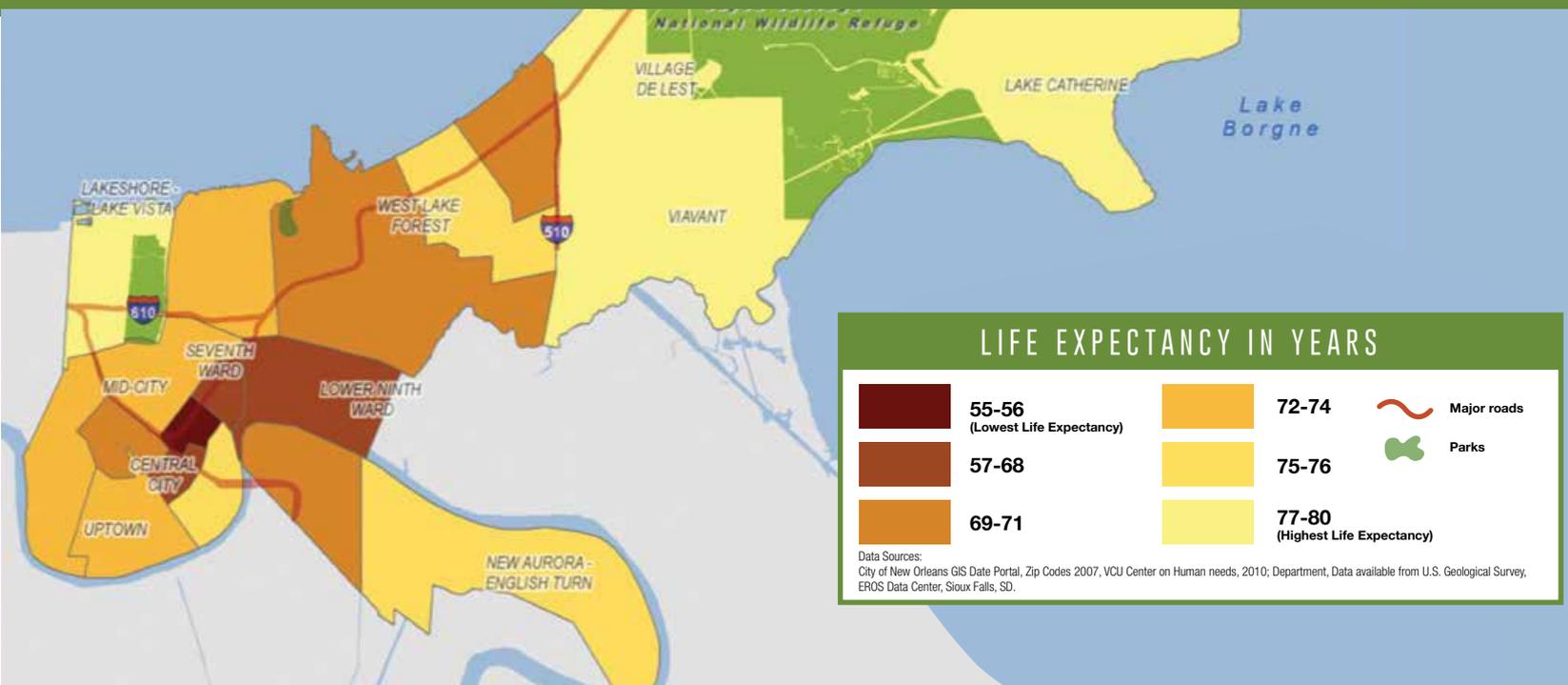
In order to drive systematic and transformative healthy living change in local communities, the AHA relies on its advocacy work, programs and partnerships in each of the five key areas of health as defined by healthypeople.gov. Those five areas include economic stability, neighborhood and built environment, health and health care, social and community context, and education.

The AHA has also adopted a community plan that invokes local AHA board leadership to make positive health changes in their communities. The community plan is aligned with the association's strategic plan and connects local action with the national vision of the 2020 Impact Goal.

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LOCATION AFFECTS LIFE EXPECTANCY

A LOOK AT HOW LIFE EXPECTANCY VARIES BASED ON SOCIOECONOMIC AND OTHER FACTORS IN NEW ORLEANS



SOCIAL DETERMINANTS OF HEALTH: A LOOK AT THE AHA'S WORK IN FIVE KEY AREAS

Economic Stability: To help address the key areas of economic stability (poverty, employment, food security and housing stability), the AHA works at the federal level to ensure low-income children have access to nutritious meals and snacks through the Childhood Nutrition Reauthorization Act. The association also works to ensure federally funded programs meet updated nutrition guidelines.

Neighborhood and Built Environment: The AHA served as a scientific adviser for Enterprise Community Partners Inc.'s 2015 Green Communities Criteria. Enterprise has been creating affordable housing across the country, and the Green Communities Criteria is the leading U.S. standard for the design, construction and operation of healthy, energy efficient and environmentally responsible affordable housing. By 2020, the Green Communities Criteria could impact 1 million people.

Health and Health Care: To address access to health care and health literacy, the AHA advocates for expanding Medicaid, to further expand stroke and STEMI quality systems of care and ensure patients receive the best care as quickly as possible. STEMI is a deadly type of heart attack that requires immediate and urgent care. The

organization also works within hospital systems through a program called Target: BP to prevent, diagnose and treat high blood pressure.

Social and Community Context: A total of 116 AHA local boards have adopted local health impact priorities that will have positive effects on their communities. Health initiatives include reducing tobacco usage, increasing physical activity, building healthy diets, addressing health factors, improving the chain of survival, and improving the quality of care through policy, systems, and environment changes. In 2015-2016, 88 major improvements have been made across 66 communities.

Education: The AHA works to ensure physical education is included in every state's comprehensive education plan. In addition, our Healthy Way to Grow program works to ensure that child care providers meet minimum standards in nutrition, physical activity, screen time limitations, breastfeeding and professional development best practices. For example, recent success in Vermont and Colorado assures that more than 365,000 children under 5 will have improved nutrition and physical education at their child care facilities.



MAKING THE HEALTHY CHOICE THE EASY CHOICE FOR OUR CHILDREN

Voices for Healthy Kids, a joint advocacy initiative between the American Heart Association and the Robert Wood Johnson Foundation, is making a lasting impact on our nation's children. The initiative, which to date has received more than \$50 million from the Foundation, is leading the way to improve the health of all children through public policy change on the state and local level, technical assistance, capacity-building, and public education.

During its first two years, Voices for Healthy Kids funded efforts to open more grocery stores in low-income communities, remove sugary drinks from childcare centers, develop sidewalk and bike paths, and unlock schoolyards so kids could have a safe place to play.

Voices for Healthy Kids has had more than 50 policy wins around the country, impacting more than 66 million lives. A study published this year in the *American Journal of*

Public Health offered powerful evidence that the program is a promising model for changing policies that improve the nutrition and physical activity environment. The study reported that financial and technical support from Voices for Healthy Kids could increase the chances of passing state policy by 50 percent. In states without initiative support, 10 percent were enacted, compared to 15 percent of bills in states with support from the initiative.

One of many program achievements this past year came in South Carolina, where the state's Department of Education required that all food and beverages sold at school meet the same nutritional standards as breakfast and lunch. This ensures that more than 749,000 South Carolina students will have equal access to healthy foods. This is a huge win for the state, which has the second-highest obesity rate in the United States for youth from 10 to 17. Voices for Healthy Kids worked

Building Healthier Communities

closely with the health advocacy group Eat Smart Move More SC to ensure South Carolina's nutrition standards meet those set by the USDA, and that standards are regularly updated with the USDA guidelines.

The victory in South Carolina was one of 31 policy wins over the past year thanks to the passionate support of countless volunteers, collaboration with like-minded leaders, and this significant partnership and funding from the Robert Wood Johnson Foundation.

BUILDING HEALTHIER COMMUNITIES THROUGH ADVOCACY

Thanks to countless advocates, the AHA successfully championed public policy changes over the past year to help ensure everyone has access to healthier lifestyle choices and proper health care. Federal regulation can help make our communities healthier. One recent example is the Food and Drug Administration ruling extending its regulatory authority to all tobacco products, including e-cigarettes, cigars, hookah, pipe tobacco and dissolvable tobacco.

When the FDA first proposed extending this authority in 2014, more than 7,800 You're the Cure advocates sent letters of support to the agency. The AHA also submitted detailed comments and met with White House and FDA officials to encourage a strong, effective rule.

The final rule took effect Aug. 8, 2016, and established a number of new requirements for manufacturers, importers and retailers, including:

- Manufacturers are required to register with the FDA, report product ingredients and obtain FDA approval to market new tobacco products.
- Misleading terms such as "light," "low" and "mild" are prohibited, unless authorized by the FDA.
- Health warnings must be included on product packages and advertisements.
- Sales to people under age 18 are prohibited, and a photo ID is required.

At the state and community levels, a number of policy changes have helped build a culture of health across the country. Below is a snapshot of some highlights over the past year:

- 4.5 million children will have access to healthier foods at school in Georgia, Alabama, Mississippi, South Carolina and Colorado thanks to state policies to meet federal nutrition standards.
- An additional 755,000 students will learn CPR before graduation thanks to public policies that require it as a high school graduation requirement in Arizona, Illinois, Kentucky, Missouri, New Mexico, New York, North Dakota, Ohio, South Carolina, Wisconsin, Clark County (Nevada), Miami Dade County and Hillsborough County (Florida).
- In Minnesota, the state's 5.4 million residents and more than 20,000 people annually who suffer a "STEMI" heart attack — a deadly type of heart attack that requires immediate and urgent care — will benefit from a stronger statewide system of care thanks to established recognition for STEMI care facilities.
- A combined 19.5 million people have safer and easier ways to be physically active thanks to dedicated funding for biking and walking in Washington, Connecticut, several counties in Oregon and Massachusetts, as well as Denver and Phoenix.

EMPOWERING WOMEN TO LEAD HEALTHIER LIVES

Since its launch 12 years ago, Go Red For Women has been educating women and their families to better prevent heart disease and stroke, and empowering them to make healthy lifestyle choices. Every year, the Go Red movement grows through national media, social media, increased brand awareness, celebrity ambassadors, and national and local corporate support. In fact, the Go Red For Women following, including those in the Go Red database, social media followers and web visitors, has increased to more than 1.2 million people.

is Why

Building Healthier Communities



“As Tennessee natives, my husband Jim and I are especially passionate about improving the quality of lives in our state. We invest in the AHA because it makes lives better by systematically changing local and state policy, improving quality care in rural areas and educating women — who often play the role of CEO and chief medical officer of the household — to live healthier. It has been meaningful to see our philanthropy inspire others to also invest in the AHA.”

*– Janet Ayers
Nashville, Tennessee*

Despite this tremendous success, more must be done to reach those who are disproportionately at risk for heart disease and stroke, including African-American and Hispanic women. Cardiovascular diseases are the leading cause of death for both groups, and yet only 36 percent of African-American women and 34 percent of Hispanic women know this is their greatest health risk. Targeted strategies to reach these women over the past year included:

- Increased community presence at more than 900 local Go Red For Women multicultural events, reaching 7.4 million African-Americans, Hispanics, Asians and Native Americans.
- Increased Hispanic media impressions to 569 million, up by over 20 million last year.
- Increased African-American media impressions to 265 million, up by over 30 million last year.
- Hosted Go Red For Women/Go Red Por Tu Corazón Miami Media Luncheon, which convened a group of influential national Hispanic media for a candid discussion about heart disease among Hispanic women.

Another important group for Go Red to reach is millennials, with the message that it's never too early to prevent heart disease. The best way to engage younger people is to meet them where they are: social media. Here's a look at how Go Red did that this past year:

- National Wear Red Day and Red Dress Collection were among the top 10 trending topics on Twitter globally.
- #GoRedForWomen reached No. 2 worldwide trending topic on Twitter on National Wear Red Day and #RedDressCollection trended ninth nationally during the Red Dress Collection fashion show. Both events were selected for a Twitter Moment, considered “the best Twitter in an instant.”
- National Wear Red Day garnered more than 3 million social media impressions.
- #GoRedGetFit launched in March 2016 as a quarterly health and fitness challenge that engages celebrity fitness trainers to encourage women to make healthy lifestyle changes. To date, the Facebook community has grown to nearly 7,000 members.

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Yvonne Israelsen with her daughter Haley on Haley's wedding day.

FROM BIRTH TO TRIPLE BYPASS

A Mother's Heart Journey

Yvonne Israelsen was 35 and had just given birth to her fourth child — a healthy baby boy. Two and a half months later, she began having chest pains and went to the ER to have it checked out. Upon arrival, the pain subsided and she was sent home with some ibuprofen. Three days later, she was back at the ER with much worse chest pains.

Yvonne was air-lifted to a Salt Lake City hospital where she was diagnosed with postpartum spontaneous coronary artery dissection. She needed a triple bypass, and her husband was given the grim news: Yvonne had a 50-50 chance of survival. Thankfully, she not only survived, but continues to thrive.

She says the hardest part of her yearlong recovery was not being able to pick up her baby boy, Caleb.

Today, Yvonne exercises, eats healthy and shares her story with other women by volunteering for Go Red For Women and participating in the Heart Walk in Salt Lake City. She's most grateful for the opportunity to watch her kids grow up. Her "baby" boy Caleb is 14!

"If you have chest pain get checked immediately," she said. "Heart complications with pregnancy and postpartum are uncommon, but it's important not to say, 'I'm fine.' Seek immediate medical attention."

COUPLE MAKES A DIFFERENCE IN PEOPLE'S LIVES



Stroke survivor Mark Moore and his wife, Brenda.

Mark Moore suffered two strokes at age 46, requiring surgery, six weeks of an induced coma and an intense two months of physical therapy. With determination, strong faith and devoted wife Brenda at his side, Mark not only fully recovered — he also ran a 5K race just a year after his stroke.

Mark and Brenda are deeply committed to their faith and to giving back to the community, which is why they choose to support EmPowered To Serve. The program brings together faith-based organizations to partner with the AHA to drive health improvements in underserved populations.

“This program is a wonderful fit for our family’s foundation, because we believe that traditional medicine and health care can and should coexist with faith,” Mark said.

The generous gift from the Mark & Brenda Moore and Family Foundation will provide vital resources to faith

“This program is a wonderful fit for our family’s foundation, because we believe that traditional medicine and health care can and should coexist with faith.”

partners nationally and to the association’s Mid-Atlantic Affiliate, including an “EmPowered” celebration to recognize and celebrate participants’ accomplishments.



PHILADELPHIA RETHINKS ITS DRINK

In June 2016, Philadelphia became the largest, and only the second, U.S. city to tax all sodas and other sugary drinks by imposing a 1.5 cent per ounce tax. One study estimated that effective taxes of at least one penny per ounce could reduce adult consumption of sugary beverages by 15 percent, adult obesity by 1.5 percent and new cases of diabetes in adults by 2.6 percent. This important public-health victory is the accumulation of five years of advocacy work by the AHA and our partners including the Action Now Initiative. The same study projected that if a tax of this nature is implemented nationwide — in addition to replacing sugary drinks with water and other healthy drinks — it has the potential to prevent 95,000 coronary heart events, 8,000 strokes and 26,000 premature deaths over 10 years. Such a tax also could prevent more than \$17 billion in total medical costs over 10 years.





Emergency

Emergency Care and Treatment is Why

THE RACE TO SAVE LIVES

Kurt Hinrichs is alive today thanks to the medical team and paramedics who took him to the nearest stroke center in under 20 minutes. At 53 years old, Kurt suffered a cryptogenic stroke, one for which a cause cannot be determined. This type of stroke accounts for about a third of all ischemic strokes, the most common type of stroke. Ischemic strokes occur as a result of an obstruction within a blood vessel supplying blood to the brain.

“When I was in the ambulance and the paramedics said we were going to Saint Luke’s, my wife was surprised, because that is not the closest hospital.”

Kurt was fortunate that the emergency responders were trained to take him to the stroke center at Saint Luke’s Hospital in Kansas City, Missouri.

“When I was in the ambulance and the paramedics said we were going to Saint Luke’s, my wife was surprised, because that is not the closest hospital,” Kurt said.

Testing revealed a large clot blocking blood flow to the left side of Kurt’s brain. After the clot-busting drug, known as tissue plasminogen activator or tPA seemed ineffective, doctors used an approach that wasn’t in wide use then, a stent retriever.

Remarkably, and within minutes of the clot’s removal, Kurt regained movement in his right arm and leg. Four days later, he would walk out of the hospital, displaying few signs that he suffered a stroke.

“Saint Luke’s did everything possible to restore me to the health that I have, and that’s been the blessing for me,” Kurt said. “They literally did every test, and some twice, to be sure I could pass every motor skill before leaving the hospital.”

Not everyone is as fortunate as Kurt to live close to an AHA/ASA accredited Comprehensive Stroke Center. Saint Luke also participates in the AHA’s Get With The Guidelines program, which ensures patients get the



Kurt Hinrichs with daughter Rebekah.

Emergency Care and Treatment

best care for stroke in the shortest amount of time. In the U.S., 74 percent of all people who suffer from ischemic strokes received treatment in 60 minutes or less when they are cared for in a Get With The Guidelines-Stroke facility.

The association is working hard to ensure that everyone has access to quality care, regardless of where they live. Just this year, advocacy efforts led to the following successes:

- Hawaii created stroke registries and Massachusetts secured funding for existing stroke registries. Stroke registries mandate that hospitals register their stroke patients and track their progress, which has proven to lead to better recoveries.
- Utah, Georgia, Nebraska and West Virginia established recognition as stroke facilities.
- In total, 15 states and the District of Columbia adopted destination protocol for stroke.

These policies and dollars will ensure the population within these states, and more than 186,000 patients who suffer from stroke, will benefit from improved systems of care.

In addition to continued advocacy efforts, the AHA is expanding Mission: Lifeline to include stroke guidelines. Mission: Lifeline for STEMI heart attacks sets the standards for patients to be treated within 90 minutes or less. When similar time to treatment standards are applied to stroke patients, minutes can mean the difference between a full recovery or death or disability – and more lives like Kurt’s will be saved.

DRIVING INNOVATION TO IMPROVE PATIENT OUTCOMES

The association is a leader in the fight to improve the care of cardiovascular and stroke patients. AHA provides science-based treatment guidelines to healthcare professionals to

help ensure best practices are used, increasing the quality of care received in hospitals, and resulting in improved patient outcomes. The AHA works with more than 4,900 U.S. hospitals, systems, physicians’ practices and ambulatory care clinics, and has enrolled over 11 million inpatient and outpatient cardiovascular patient records through its quality improvement programs and initiatives: Get With The Guidelines, Mission: Lifeline, The Guideline Advantage and Hospital Accreditation/Certification.

This year, we’re piloting a new quality improvement program. Get With The Guidelines-Connect is being tested in Hartford, Connecticut, thanks to a generous three-year grant from the Bugher Foundation. GWTG-Connect is a unique platform that allows EMS patient care reports to link with existing hospital-based AHA Inpatient Quality Improvement registries to provide advanced feedback to EMS agencies, EMS systems and hospitals. This gives EMS providers information on patient outcomes, allowing them to continuously improve the care provided to each subsequent patient. By establishing a national platform, the AHA can provide aggregated performance reports to the EMS providers on regional, state and national levels.

“We’ve only been involved with GWTG-Connect for three months, and I’ve already noticed an improvement in the amount of time it takes to get the patient from home to the time we notify the hospital that we’re on the way,” says Josh Conroy, Quality Assurance Manager for Ambulance Service of Manchester and Aetna Ambulance Service of Hartford. “Having a platform that can immediately tabulate this kind of data that would normally take hundreds of man hours means that we can instead focus on enhancing our training in order to continue reducing that time.”

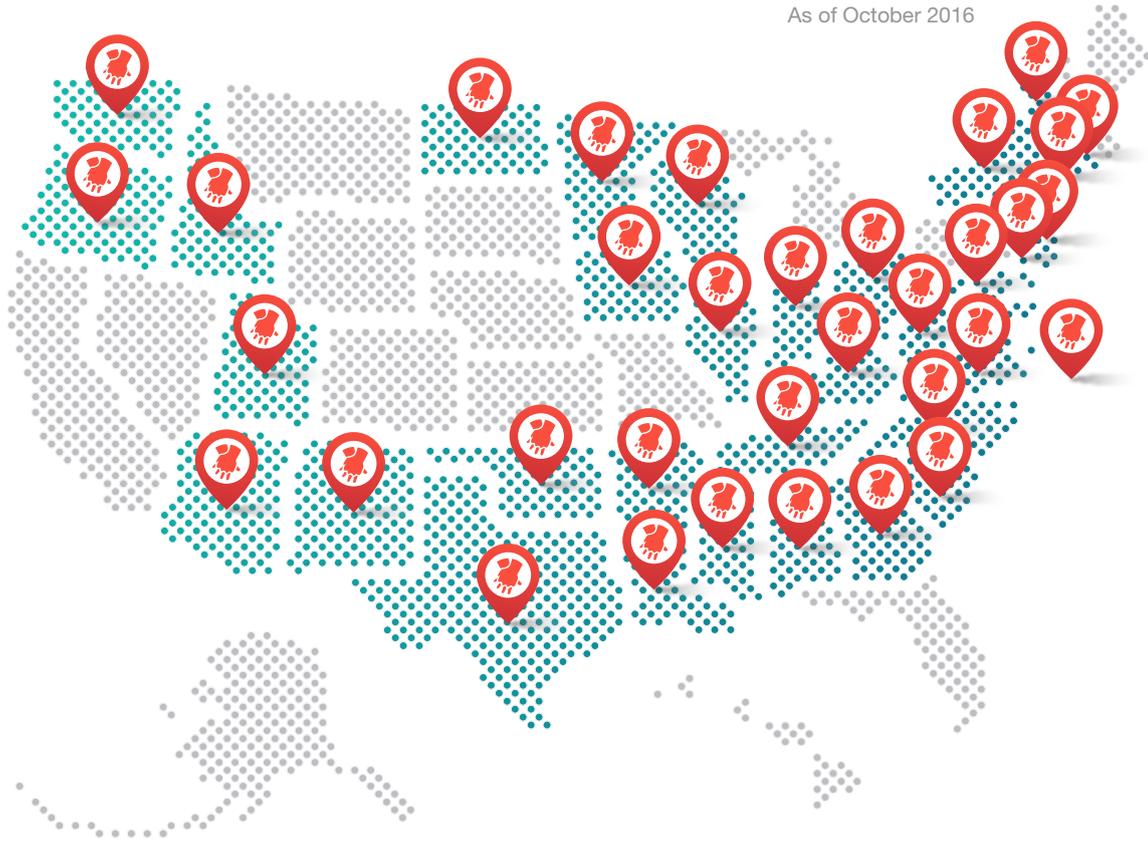
The platform is already leading to the discovery of areas that can be improved upon for better patient outcomes. As the pilot continues, the AHA will be able to conduct research to evaluate the effectiveness of the system improvements.

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HERE ARE THE 34 STATES THAT HAVE PASSED LAWS REQUIRING CPR FOR HIGH SCHOOL GRADUATION

By AMERICAN HEART ASSOCIATION NEWS

As of October 2016



Sources: American Heart Association and National Center for Education Statistics

ADDING LIFESAVERS TO COMMUNITIES NATIONWIDE

Sudden cardiac arrest — when the heart suddenly stops beating — is a leading cause of death in the United States.

Each year, more than 350,000 people experience an EMS-assessed, out-of-hospital cardiac arrests in the U.S. According to the AHA, about 88 percent of people who suffer out-of-hospital cardiac arrest die. However, when the victim receives CPR from a bystander, survival rates can double or triple.

The EQT Foundation and Potomac Health Foundation are ensuring their communities are equipped with the lifesaving knowledge and skills through multi-year gifts to the AHA in support of CPR training.

For nine consecutive years, the EQT Foundation has provided more than 150,000 people with CPR training in Kentucky, Pennsylvania, Ohio, Texas and West Virginia. Foundation gifts have supplied 127 middle schools with CPR Anytime training kits. These kits are taken home by the students to train others, thus expanding the pool of lifesavers trained in CPR and empowering students to build healthier and safer communities.

The Potomac Health Foundation has supported CPR training for three years that will amount to more than 47,000 people trained in CPR in Prince William County, Virginia, and surrounding areas. The program asks each person trained to serve as a CPR Champion, which

is



includes training four additional people. New this year are events focused on Hispanic and African-American residents through faith-based and community partners. Hispanics and African-Americans have higher cardiac arrest rates than white people, but lower chances of receiving lifesaving bystander-initiated CPR before EMS can arrive.

Over the past three years, West Virginia became one of more than 30 states requiring CPR training as a graduation requirement. Both the EQT and Potomac Health Foundations have placed reusable, sustainable AHA CPR training kits in schools in their service areas to train students to become CPR Lifesavers.

IT'S SIMPLE *Your Support Saves Lives*

The American Heart Association is deeply committed to building healthier lives free of cardiovascular diseases and stroke — but we can't do it without you. Advancements in treatments and research are fueled by the extraordinary support that we receive annually from more than 30 million volunteers, donors and advocates. Your investments of time, energy and leadership in the fight to end heart disease and stroke are deeply appreciated.

“Our vision for transforming the future of cardiovascular medicine is built on the incredible generosity of donors like you. In 2015-16, your support allowed us to take bold, unprecedented steps to advance knowledge and accelerate science through cutting-edge research. Your commitment also enabled us to continue our work to promote healthy lifestyles, raise awareness of risk factors, improve the quality of care and systems of care in hospitals and communities across the country, and much more. Thank you again for your dedication to our mission of building healthier lives, free of cardiovascular diseases and stroke.”

*- American Heart Association
CEO Nancy Brown*



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